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PROPOSED
RESOURCE MANAGEMENT PLAN/
FINAL ENVIRONMENTAL IMPACT STATEMENT

for the

Steese National Conservation Area

BUREAU OF LAND MANAGEMENT
FAIRBANKS DISTRICT OFFICE
NOVEMBER 2, 1984

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Environmental Impact Statement

Draft ( ) Final (X)

Steese National Conservation Area
Yukon Resource Area
Fairbanks, Alaska

Lead Agency
U.S. Department of the Interior, Bureau of Land Management

Type of Action
Administrative (X) Legislative ( )

Abstract

This environmental statement addresses a plan and alternatives for the management of the Steese National Conservation Area as required by Section 401 of P.L. 96-487 (ANILCA). Six alternatives incorporating a range of management emphasis from resource development to environmental protection are presented and analyzed. Public comments were used to develop a preferred alternative (proposed plan) that provides for special consideration for Birch Creek, caribou range, primitive and semi-primitive motorized recreation, protection of scenic qualities, and continuation of land and resource uses consistent with the intent of the plan objectives. Environmental consequences of the alternatives are analyzed and presented.

For further information about this Environmental Impact Statement:

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Alaska State Office
701 C Street, Box 13
Anchorage, Alaska 99513

Dear Reader:

Enclosed for your review and future reference is the final environmental impact statement (FEIS) for the Steese Resource Management Plan (RMP). This document also includes the proposed plan, which is a modified version of the preferred alternative discussed in the draft RMP/EIS published in December 1983. The proposed plan incorporates all RMP-level guidance needed to resolve the six land management issues identified earlier in the planning process.

Any person or group who participated in the planning process and has an interest which is or may be adversely affected by the approval of the Steese FEIS/RMP may protest this action to the Director, Bureau of Land Management. Protests should be sent to the Director (202), Bureau of Land Management, 1800 C Street NW, Washington, DC, 20240, prior to December 3, 1984 - the end of the thirty day protest period - and should include the following information:

The name, mailing address, telephone number, and interest of the person filing the protest.

A statement of the issue or issues being protested.

A statement of the part or parts of the plan being protested.

A copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party, or an indication of the date the issue or issues were discussed for the record.

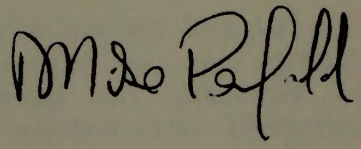
A concise statement explaining why the proposed decision is believed to be wrong.

At the end of the thirty-day protest period, the proposed plan, excluding any portion under protest, will become final. Approval will be withheld on any portion of the plan under protest until final action has been completed.

Any significant change to the proposed plan made as a result of a protest will be made available for public review and comment prior to final approval and implementation.

I want to personally thank those of you who have contributed to and participated in the development of this plan. I hope your involvement will continue as we move forward into the implementation and monitoring phases of the Steese Resource Management Plan and also as we develop RMPs for other BLM lands in Alaska.

Sincerely yours,



Michael J. Penfold
State Director

SUMMARY

The Final Environmental Impact Statement describes effects resulting from the management actions proposed in each of the alternatives, including the proposed plan. A comparative analysis of the effects has led to three general goals to be resolved through this planning effort.

1. Improve the water quality of Birch Creek National Wild River.

2. Manage present and historical caribou habitat as a primary land use.

3. Manage lands consistent with multiple use principles and maintenance of environmental quality.

These goals were derived from an analysis of public comment and Congressional intent in establishing the Steese National Conservation Area and Birch Creek National Wild River (Public Law 96-487).

Principal issues to be resolved include the protection of caribou range and improvement of the water quality of Birch Creek, while allowing the continuation of valid existing uses consistent with protection of the scenic, scientific, cultural, and other resources of the area.

Five areas of concern or need have been identified: (1) the conflict between recreational needs and mineral development, (2) coordination of the RMP with the Birch Creek National Wild River Management Plan, (3) caribou range, (4) access, and (5) subsistence use. The draft Environmental Impact Statement published in January, 1984, developed and analyzed five alternatives, all of which provide various levels of land-use allocation and management to meet these needs.

The Proposed Plan, which is the preferred alternative of this final EIS, was developed to emphasize protection of caribou range, improve the quality of Birch Creek and provide for a variety of resource uses where consistent with these values and multiple use management. The Proposed Plan is a modification of Alternative E of the draft RMP/EIS. Public comment on the draft EIS influenced the development of the Proposed Plan.

Alternative A would provide for continuation of present management. It is the "no action" alternative of this EIS, as it proposes continuation of existing management. Recreation management would be aimed primarily at maintaining present recreational opportunities, which are largely primitive and semi-primitive. About 92 percent of the area would remain primitive. Few facilities or services would be provided. Congressional withdrawal of minerals would remain and development would be allowed only on valid existing claims. Management of wildlife and other resources would remain at a relatively low level.

Alternative B would increase the level of resource protection. Recreation management would still be aimed at maintaining primitive and semi-primitive values, but with a higher level of visitor services and use restrictions. About 92 percent of the area would be managed for primitive values. Holders of unperfected mining claims outside the wild river corridor would be allowed to re-record those claims under terms of Section 404 of PL 96-487. No lands would be open to location of new claims or leasing, and there would be stricter mitigation and monitoring of mining operations. Wildlife habitat would be intensively managed to maintain or increase wildlife populations. Maintaining the good-quality habitat in the undisturbed tributaries of Birch Creek NWR would be a priority. Access would remain limited.

Alternative C would provide a somewhat wider range of use opportunities. About 42 percent of the area would be managed for primitive values with very restricted development. The remaining lands would be available for economic development, including improved recreational facilities. The entire area would be open to geothermal and oil and gas leasing. About 58 percent of the area would be open to location of new claims, coal leasing, and leasing of nonenergy minerals. Holders of unperfected mining claims outside the wild river corridor would be allowed to re-record the claims under terms of Section 404 of PL 96-487. Access would be improved and wildlife habitat and other resources would be protected, through regulation, from possible adverse effects of development.

Alternative D would provide for the widest range of human use of the SNCA. About 6 percent of the area would be managed for primitive values. The remainder would be open to some recreational and mineral development, with special measures to protect wildlife and other resources. Access would be improved.

Alternative E is a modification of Alternative D, with management emphasis on special protection of the resources. The wild river corridor, the Research Natural Areas, and land encompassing one-half mile on either side of the Pinnell Mountain Trail (on federal lands within the SNCA) will be managed under primitive ROS classifications. Access would be improved and more recreation facilities built. Outside the wild river corridor, the Research Natural Areas, and the Pinnell Mountain Trail Corridor, holders of unperfected mining claims would be allowed to re-record those claims. Wildlife habitat would be protected to maintain wildlife populations at or greater than 1982 levels.

Table 1-1 displays the general points of difference between the alternatives.

STEESE NATIONAL CONSERVATION AREA

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GLOSSARY
(Including Acronyms and Abbreviations)

ACEC	Area of Critical Environmental Concern. An area within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources or other natural systems or processes; or to protect life and provide safety from natural hazards.
ADF&G	Alaska Department of Fish and Game
ANILCA	Alaska National Interest Lands Conservation Act of 1980 (P.L. 96-487)
ANOMALY	A deviation from the background mineral concentrations expressed in parts per million or parts per billion.
AUTHORIZED OFFICER	Any employee of the Bureau of Land Management to whom the authority to perform specific duties has been delegated.
BLM	Bureau of Land Management. A federal agency within the Department of the Interior charged with the management of public lands.
BUREAU	Bureau of Land Management
CASUAL USE	Any short-term non-commercial activity which does not cause appreciable damage or disturbance to the public lands, their resources or improvements and which is not prohibited by closure of the lands to such activities.
CLIMAX VEGETATION (climax communities)	A relatively stable community of plants that is achieved through a successful adjustment to the environment.
CRITICAL HABITAT	The area of land, water, and airspace required for the normal needs and survival of wildlife species of special concern.

CRITICAL MINERALS

"Those minerals essential to the national defense the procurement of which, during war, while difficult, is less serious than these of strategic minerals (because they can either be domestically produced or obtained in more adequate quantities from reliable foreign sources)."
(Thrush, P.W., 1968, A Dictionary of Mining, Mineral, and Related Terms, U.S. Dept. of the Interior, Bureau of Mines, 1269 pages.)

CRITICAL PROTECTION SITE

A site designated through the fire management planning process which receives the highest priority for fire suppression action in order to protect human life, inhabited property, and designated physical developments.

CRUCIAL HABITAT

Use area necessary for the perpetuation of the population of one or more species. These areas provide an essential element of the life cycle of a species or population. Crucial habitat may include areas essential for food, shelter, breeding, rearing, escape, and movement.

CULTURAL RESOURCES

Those fragile and nonrenewable remains of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, and natural features that were of importance in human events. These resources consist of (1) physical remains, (2) areas where significant human events occurred--even though evidence of the event no longer remains, and (3) the environment immediately surrounding the resource.

CULTURAL RESOURCE INVENTORY

A descriptive listing and documentation, including photographs and maps, of cultural resources. Included are the processes of locating, identifying, and recording sites, structures, buildings, objects, and districts through library and archival research, information from persons knowledgeable about cultural resources, and varying levels of intensity of on-the-ground field surveys.

EA	Environmental Assessment
ECOLOGICAL RESERVE SYSTEM	A national network of sites that will assist scientists in identifying areas particularly well suited for conducting specific projects. These sites, called Research Natural Areas, will provide the scientist with a place to conduct long term research without disturbance from developmental activities.
EIS	Environmental Impact Statement
ENDANGERED SPECIES	An animal or plant whose prospects of survival and reproduction are in immediate jeopardy, and as is further defined by the Endangered Species Act of 1973, as amended.
ENERGY MINERALS	Fossil fuels which provide energy, such as coal and oil and gas.
EXPLORATION	The search for energy and non-energy minerals without surface disturbance or the use of explosives.
FEDERAL LANDS	Lands owned by the United States, without reference to how the lands were acquired or which federal agency administers the lands, including mineral estates or coal estates underlying private surface, but excluding lands held by the United States in trust for Indians, Aleuts, or Eskimos.
FLOODPLAIN	The nearly level alluvial plain that borders a stream and is subject to inundation during high water.
FLPMA	Federal Land Policy and Management Act of 1976 (P.L. 94-579)
GVW	Gross Vehicle Weight
HABITAT MANAGEMENT PLAN	A plan which provides more specific planning of an area with high biological values that has been identified by a Resource Management Plan. Recommendations of the plan address protection, maintenance, and possible improvement of the biological values identified in an area of a crucial biological habitat.

HARDROCK MINING	A term that refers to underground or open pit mining as opposed to placer or hydraulic mining.
HMP	Habitat Management Plan
INHOLDING	A parcel of non-federal land surrounded by federal land.
LEASABLE MINERALS	Traditionally, those minerals other than oil and gas and coal that are subject to leasing. The Mineral Leasing Act of 1920, as amended, provides for leasing of deposits of chlorides, sulphates, carbonates, borates, silicates, or nitrates of potassium and sodium; phosphate; native asphalt, solid and semisolid bitumen and bitumenous rock or sands from which oil is recovered only by special treatment after the deposit is mined; minerals in acquired lands which would be subject to location under the United States mining laws if located in public domain lands; and for the development of sodium, magnesium, aluminum or calcium deposits, in any forms described and associated with potassium deposits.
LIMITED MINERAL DEVELOPMENT ZONE	The Limited Mineral Development Zone is an area where limitations on mineral development would be significatly different from those which would apply throughout the rest of the SNCA. Within the LMDZ: 1. Holders of properly located and maintained mining claims would be allowed to re-record their claims. No filing of new mining claims would be permitted. 2. Oil and gas leasing would be permitted, but only with no surface occupancy. 3. No leasing of non-energy minerals would be permitted.
LMDZ	Limited Mineral Development Zone
LOCATABLE MINERALS	Minerals or materials subject to disposal and development through the Mining Law of

	1872 (as amended). Generally includes metallic minerals such as gold and silver and other minerals (bentonites, limestone, talc, some zeolites, etc.).
MITIGATING MEASURES	Steps developed through the environmental assessment process and usually taking the form of stipulations attached to an authorizing document which are designed to minimize or eliminate environmental impacts.
mg/l	Milligrams per liter
ml/l	Milliliters per liter
MULTIPLE USE MANAGEMENT	The management of public lands and their various resource values so they are used in the combination that will best meet the present and future needs of the American people.
NATIONAL REGISTER OF HISTORIC PLACES	A listing of historic properties throughout the nation which was established in 1966 by an Act of Congress (P.L. 89-665). Its purpose is to identify districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture.
NEPA	National Environmental Policy Act of 1969 (P.L. 91-190)
NTU	Nephelometric Turbidity Unit. A measure of the amount of light scattered by a water sample due to particles in suspension. A relative indication of the amount of suspended material in a water sample.
NWR	National Wild River. A component of the National Wild and Scenic Rivers System, designated by the Wild and Scenic Rivers Act (P.L. 90-542).
OFF-ROAD VEHICLE	Any motorized vehicle capable of or designed for travel on or immediately over land, water or other natural terrain.
OFF-ROAD VEHICLE DESIGNATION	
OPEN	Designated areas and trails where off-road vehicles may be operated (subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343).

LIMITED	Designated areas and trails where the use of off-road vehicles is subject to restrictions, such as limiting the number or types of vehicles allowed, dates, and times of use (seasonal restrictions); limiting use to existing roads and trails; or limiting use to designated roads and trails. Under the designated roads and trails designation, use would be allowed only on roads and trails that are signed for use. Combinations of restrictions are possible, such as limiting use to certain types of vehicles during certain times of the year.
CLOSED	Designated areas and trails where the use of off-road vehicles is permanently or temporarily prohibited. Emergency use of vehicles is allowed.
ORV	Off-road vehicle
PALEONTOLOGY	The study of fossils and ancient life forms.
PATENT	The original conveyance document from the U.S. Government granting legal title to a recipient for surveyed public lands.
PEREGRINE FALCON RECOVERY PLAN - ALASKA POPULATION	This recovery plan for the Alaska peregrine falcon was developed by U.S. Fish and Wildlife Service in September, 1982. It outlines steps and procedures which, if carried out, will result in an increase of the peregrine falcon population to a non-endangered level in Alaska.
P.L. 90-190	Public Law 90-190. National Environmental Policy Act of 1969 (NEPA).
P.L. 90-542	Public Law 90-542, the Wild and Scenic Rivers Act of 1968.
P.L. 94-579	Public Law 94-579, Federal Land Policy and Management Act of 1976. (FLPMA).
P.L. 96-487	Public Law 96-487, the Alaska National Interest Lands Conservation Act of 1980 (ANILCA).
PLACER MINING	A form of mining in which the surface material is washed for gold or other

	valuable minerals. When water under pressure is employed to break down the gravel, the term hydraulic mining is generally used.
PLAN OF OPERATION	A document required by 43 CFR 3809, for any mining operation which disturbs more than five acres or where valid existing rights are exercised.
PLANNING CRITERIA	The factors used to guide development or revision of the resource management plan, to ensure that it is tailored to the issue as initially identified and to ensure that unnecessary data collection and analyses are avoided. Planning criteria are developed to guide the collection and use of inventory data and information, the analysis of the management situation, the design and formulation of alternatives, the estimation of the effects of alternatives, the evaluation of alternatives, and the selection of the preferred alternative.
PRESCRIBED BURN	An intentionally ignited wildland fire that burns in a designated area under predefined weather and fuel moisture conditions, in order to achieve specific land and resource management objectives.
ppm	Parts per million
PRMP	Preliminary Resource Management Plan
PRIMITIVE	One of the six classifications in the Recreation Opportunity Spectrum. In an area classified as Primitive, there is an extremely high probability of experiencing isolation from the sights and sounds of other humans. The environment provides an opportunity to experience tranquility and a closeness to nature, while offering a high degree of challenge and risk in developing outdoor "survival" skills and achieving independence and self-reliance.
RAMP	Recreation Activity Management Plan
RARE PLANT	Rare plants are those taxa recognized as having very low population numbers and/or very limited habitat.

RECLAMATION	Taking such reasonable measures as will prevent undue or unnecessary degradation of federal lands, including recontouring land disturbed by operations, stockpiling topsoil for final application after recontouring, and, where necessary, revegetating disturbed areas so as to provide diverse vegetative cover.
RECREATION OPPORTUNITY SPECTRUM	(ROS) A continuum used to characterize recreation opportunities in terms of setting, activity, and experience opportunities. The six classes in the ROS are Primitive, Semi-Primitive, Non-Motorized, Semi-Primitive Motorized, Roaded Natural, Rural, and Urban.
RENEWABLE RESOURCES	All of the products and physical values produced or continued within BLM lands which could be restored or replenished as they are used (e.g., wildlife, vegetation, water). Does not include resources such as minerals, soils, or cultural artifacts, which once used or destroyed -- are gone forever.
RESEARCH NATURAL AREA	An area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics: (1) a typical representation of a common plant or animal association; (2) an unusual plant or animal association; (3) a threatened or endangered plant or animal species; (4) a typical representation of common geologic, soil, or water features; or (5) outstanding or unusual geologic, soil or water features.
RIPARIAN AREA	A specialized form of wetland with characteristic vegetation restricted to areas along, adjacent to, or contiguous with, rivers and streams. Also, lake and reservoir shore areas which are periodically flooded, as well as lakes with stable water.
RMP	Resource Management Plan
RNA	Research Natural Area
ROS	Recreation Opportunity Spectrum

SALEABLE MINERALS

Minerals such as common varieties of sand, stone, gravel, cinders, pumice, pumicite, and clay which may be acquired under the Materials Act of 1947, as amended.

SEMI-PRIMITIVE MOTORIZED

One of six classifications in the Recreation Opportunity Spectrum. In an area classified as Semi-Primitive Motorized, there is a moderate probability of experiencing isolation from the sights and sounds of other humans. The environment provides an opportunity to experience tranquility and a closeness to nature, while offering a high degree of challenge and risk in the development of outdoor "survival" skills and the achievement of independence and self-reliance. There is the opportunity to use motorized equipment while in the area.

SEMI-PRIMITIVE NON-MOTORIZED

One of the six classifications in the Recreation Opportunity Spectrum. In an area classified as Semi-Primitive Non-Motorized, there is high but not extremely high probabilty of experiencing isolation from the sights and sounds of other humans. The environment provides an opportunity to experience tranquility and a closeness to nature, while offering a high degree of challenge and risk in the development of outdoor "survival" skills and the achievement of independence and self-reliance.

SENSITIVE PLANTS

Plant taxa that are not yet officially listed but are undergoing a status review or are proposed for listing according to Federal Register notices published by the Secretary of the Interior or the Secretary of Commerce or according to comparable state documents published by state officials. BLM policy applies the full protection of the Endangered Species Act to those species.

SENSITIVE SPECIES

A designation which is (1) applied to species not yet officially listed but which are undergoing a status review or are proposed for listing according to Federal Register notices published by the Secretary of the Interior, or the Secretary of Commerce, or in accordance with comparable

	state documents published by state officials; (2) applied to species whose populations are consistently small and widely dispersed or whose ranges are restricted to a few localities, such that any appreciable reduction in numbers, habitat availability, or habitat condition might lead toward extinction; or (3) applied to species whose numbers are declining so rapidly that official listing may become necessary as a conservation measure.
SMA	Special Management Area. (See Wildlife Special Management Areas)
STRATEGIC MINERALS	"Those commodities essential to the national defense for the supply of which, during war, we are wholly or in part dependent upon sources outside the boundaries of the United States." (Thrush, P.W., 1968, A Dictionary of Mining, Mineral, and Related Terms, U.S. Dept. of the Interior, Bureau of Mines, 1269 pages.)
SURFACE MANAGEMENT REGULATIONS	43 CFR 3809. Regulations for the implementation of the Mining Law of 1872.
SNCA	Steese National Conservation Area
THREATENED SPECIES	Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range; and further defined by the Endangered Species Act of 1973, as amended.
UNDUE OR UNNECESSARY	Surface disturbances greater than those that would normally result when an activity is being accomplished by a prudent operator in usual, customary, and proficient operations of a similar character. This also takes into consideration the effects of the operation on the other resources and land uses, including resources and uses outside the area of operations.
VALID EXISTING RIGHT	A right granted to an operator or holder of an unpatented mining claim to develop a mining property, including the right to reasonable access, by virtue of establishing

	a mining claim prior to withdrawal. Claims must be maintained in accordance with all laws to continue this right.
VIEWSHED	The landscape that can be directly seen under favorable atmospheric conditions, from a viewpoint or along a transportation corridor.
VISUAL RESOURCE	Land, water, vegetation, animal, and other visible features.
VISUAL RESOURCE MANAGEMENT	The planning, designing, and implementation of management objectives to provide acceptable levels of visual impacts for all BLM resource management activities.
VISUAL RESOURCE MANAGEMENT CLASSES	The degree of acceptable visual change within a characteristic landscape. A class is based upon the physical and sociological characteristics of any given homogeneous area and serves as a management objective.
Class I	areas (preservation) provide for natural ecological changes only. This class includes primitive areas, some natural areas, some wild and scenic rivers, and other similar sites where landscape modification activities should be restricted.
Class II	(partial retention of the landscape character) includes areas where changes in any of the basic elements (form, line, color, or texture) caused by management activitiy should not be evident in the characteristic landscape.
Class III	(partial retention of the landscape character) includes areas where changes in the basic elements (form, line, color, or texture) caused by a management activity may be evident in the characteristic landscape. However, the changes should remain subordinate to the visual strength of the existing character.
Class IV	(modification of the landscape character) includes areas where changes may subordinate the original composition and character. However, they should reflect what could be a natural occurrence within the characteristic landscape.

Class V	(rehabilitation or enhancement of the landscape character) includes areas where change is needed. This class would apply to areas where the quality class has been reduced because of unacceptable intrusions. It should be considered an interim short-term classification until one of the other classes can be reached through rehabilitation or enhancement.
VRM	Visual Resource Management
WILDLIFE SPECIAL MANAGEMENT AREAS	Wildlife areas important to maintaining populations of one or more species. Some factors known to be required for maintenance of populations include suitable reproductive areas (denning, spawning, calving, etc.), high value cover (escape terrain), movement routes, winter range, and overwintering areas for fish. High intensity management will be applied to SMAs through BLM procedures such as the Habitat Management Plan, special stipulations on permits or leases, plans of operation, or other applicable administrative processes to facilitate management of the special habitat values for which the SMA was designated. Special stipulations for activities within an SMA would be developed on a case by case basis in response to a particular proposal. They may include seasonal use restrictions, location and design standards for roads and facilities, and rehabilitation requirements.
WMNRA	White Mountains National Recreation Area

PART ONE

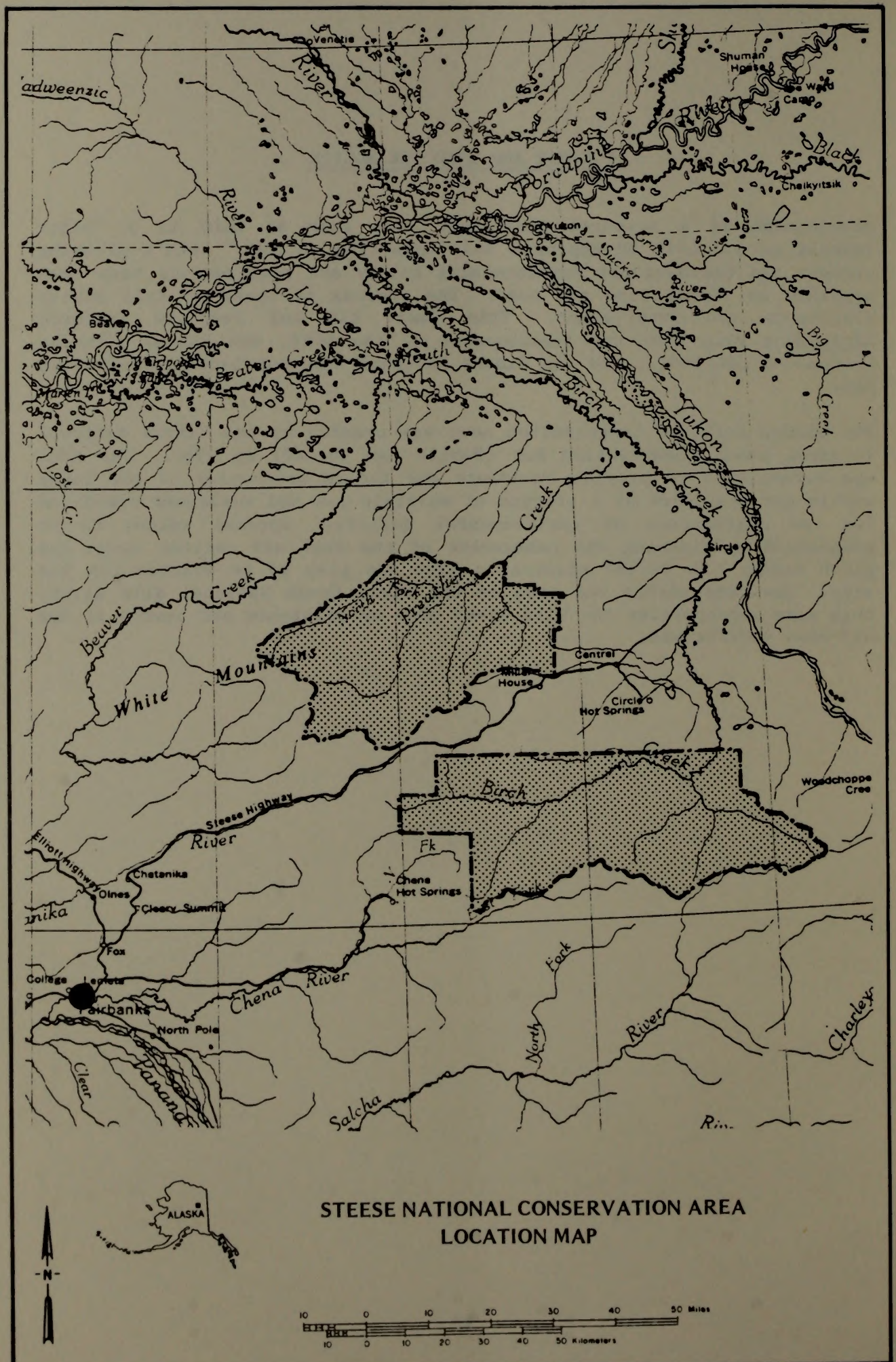
Steese National Conservation Area

ENVIRONMENTAL IMPACT STATEMENT

PURPOSE AND NEED FOR ACTION

Development of a Resource Management Plan such as this is a "major federal action (516 DM Appendix 503) requiring an EIS." BLM's planning process and the National Environmental Policy Act requirements have been combined to reduce time and cost. The process is based on full public disclosure and involvement. This final EIS and Proposed Resource Management Plan meet the requirements of the NEPA, the Bureau Planning System (43 CFR 1600), and the Alaska National Interest Lands Conservation Act.

The Steese National Conservation Area was created by the Alaska National Interest Lands Conservation Act (Public Law 96-487) in 1980. The SNCA was established to provide immediate and future protection of the lands within the framework of a program of multiple use and sustained yield and for the maintenance of environmental quality. Special values to be considered in planning and management of the area are caribou range and Birch Creek. PL 96-487 requires a land use plan to be written for the area. Included within the area in the Birch Creek National Wild River, this plan incorporates the Wild River plan by reference and amends it for off-road vehicle use.



STEESE NATIONAL CONSERVATION AREA
LOCATION MAP

ISSUE-DRIVEN PLANNING

The BLM planning regulations generally equate land use planning with problem solving or, in other words, with issue resolution. An issue may be defined as an opportunity, conflict, or problem regarding the use or management of public lands and resources. Obviously, not all issues can be resolved through land use planning, but may instead require changes in policy, budgets, or legislation.

As a practical matter, issue-driven planning means that only those aspects of current management direction that are felt to be at issue are examined through the formulation and evaluation of alternatives. Alternatives are not developed for those aspects of current management direction that are felt to be satisfactory.

Six issues are addressed in this documents. These issues were identified based on the judgment of planning team members, interagency consultation, public input, and management review.

The Birch Creek National Wild River, as designated by Congress and defined in the Wild River Management Plan, must receive special consideration and coordination in this RMP to protect the values which led to the wild river designation. There is considerable placer gold mining in the vicinity of, and upstream from, the designated Wild River corridor. Controversy has arisen, and will continue to arise, over water quality, visual resources, and access through the National Wild River corridor. Decisions are needed on the following questions.

> When, and under what conditions, is access for crossing the corridor necessary?
>
> What can be done to protect and/or improve the water quality of the river and its major tributaries?
>
> What management actions are necessary to protect the wild and scenic character of the land?

Congress identified caribou as a special value to be considered in planning for this area. Public interest and concerns were expressed concerning caribou and other wildlife values of the area. In years past, when their population was at a much higher level, the Fortymile caribou herd used this area extensively. It is hoped that with proper management of the area, the herd will regain its former strength. Decisions are needed on the following questions.

> Where are the crucial habitat areas for this herd, and how can those areas be given special consideration?

What activities can occur in the area, and under what conditions, while protecting and enhancing the viability of the herd?

What other wildlife values are important in the area, and how can they be managed while still giving caribou special consideration?

The Recreational values of the area are very important to the users, who are primarily from the Fairbanks area. Recreational pursuits associated with the Birch Creek National Wild River are the most important, due to the ease and popularity of floating this stream and the access it provides deep into the SNCA. The potential conflict of mining in and adjacent to the Area and its effects on water quality and visual resources are major issues of this plan. Decisions are needed on the following questions.

What forms of recreation are most important for this area?

Can the recreational experience be protected and enhanced, while still providing for multiple-use management and sustained yield?

Mineral exploration and development is a recognized value of the Area. Special attention is needed to reduce, if possible, the impacts on other important resource values, especially the Birch Creek National Wild River and caribou. The area is mineralized but values, locations, and the potential contribution to the local economy are unknown. Decisions are needed on the following questions.

What lands, if any, should remain withdrawn from mineral entry in order to protect the caribou and Birch Creek?

What special considerations are necessary to protect other important resources from unnecessary damage in those areas where mineral extraction is allowed?

Access into the area is desired by many users. However, there is disagreement over the type of access and where to provide it. Many prefer limited and mostly non-motorized access, while others want roads and unrestricted use of ORVs. Decisions are needed on the following questions.

What lands should be identified for road corridors, if any?

What kind of ORV uses are appropriate, where, and under what controls?

There is subsistence use of the area. Although very limited it must be given consideration under the terms of Section 810 of Public Law 96-487.

PLANNING CRITERIA

Planning criteria were developed and revised at several points during the planning process to assure that the planning steps were focused on the issues. The draft EIS/RMP listed a wide range of criteria used to guide resource inventories, to establish an outline for the management situation analysis, to aid in formulating alternatives and to highlight factors to be considered in evaluating alternative, and in selecting a preferred alternative. The following criteria were used to develop the Proposed Plan and final EIS.

Plan Criteria

All alternatives will be compatible with the Birch Creek National Wild River Management Plan.

At least one alternative will provide for management of caribou habitat which will ensure that Alaska Department of Fish and Game caribou population objectives can be met.

All alternatives will establish recreation management objectives using the Recreation Opportunity Spectrum concept.

Protection of endangered species and their habitats will be given priority in all alternatives.

Wildlife habitat management will be consistent with ADF&G management objectives.

All alternatives will provide for access which is consistent with designated land uses.

The plan will be coordinated with plans of adjacent land managers.

All alternatives will provide for management of mineral development according to the principles of multiple use and protection of environmental values.

Consideration will be given to the continuation of existing mining operations, recognizing the need to meet water quality standards.

Recreational objectives will be formulated in close cooperation with the State of Alaska.

All alternatives will allow incidental resource uses which do not conflict with primary management objectives.

Criteria for the Selection of the Proposed Plan

The Proposed Plan will provide for:

- compatibility with Birch Creek National Wild River Management Plan,
- increase of caribou population and habitat in accordance with the objectives of the Alaska Department of Fish and Game,
- a program of multiple use, including such activities as recreation, mining, and wildlife management, consistent with the protection of environmental quality,
- continuation of existing uses, with emphasis on maintenance of environmental quality, and
- identification of transportation corridors which will provide access for multiple use management and to those inholdings which require surface access.

Criteria for Estimating Effects

All alternatives will include an analysis in Chapter III of the effects on:

Recreation
Wildlife
Fish
Minerals
Water Resources
Vegetation
Visual Resources
Cultural Resources
Social and Economic Conditions
Support Needs
Subsistence

INTRODUCTION TO THE CHAPTERS

The alternatives are described and analyzed in Chapter I, Alternatives. Activities which are occurring, or are predicted to occur, as a result of the management direction in each alternative, will be discussed by alternative and resource.

Chapter II, Affected Environment, contains the description of those environments of the SNCA affected by these management alternatives.

Chapter III, Environmental Consequences, includes an analysis of impacts and mitigation for each alternative. An analysis of subsistence use and needs, including the findings required by Section 810(A) of ANILCA, is found at the end of each alternative discussion. The Section 810(A) analysis is summarized near the end of the chapter. (See Index for pages.) Resources which will be irreversibly and irretrievably committed, the relationship between the short-term uses and long-term productivity, and those adverse impacts which cannot be mitigated or avoided if the management actions in the Proposed Plan are implemented, are also discussed in this chapter.

Chapter IV, Consultation and Coordination, details the public involvement during the planning process and lists those to whom the draft RMP/EIS and FEIS/PRMP were sent.

Chapter V, Response to Public Comments, contains a detailed response to individual public comments which were received on the draft RMP/EIS during the comment period of January 1, 1984 to March 1, 1984.

CHAPTER 1 - DESCRIPTION OF ALTERNATIVES

A comparative description of the Proposed Plan and other alternative management options will be described in this chapter and is presented in summary form in Table 1-1. The impacts affecting the resources will be presented and mitigation measures to eliminate or offset the impacts are described in Chapter III, Environmental Consequences.

The Bureau's planning regulations require the preparation of several reasonable resource management alternatives which span the spectrum of possibilities from an alternative which would continue present levels and systems of management to one in which there is an emphasis on economic development (43 CFR 1610.4-5).

The Planning Team, aided by public review and comment, developed four alternatives (Alternatives A, B, C, and D), the general definition of which will be found in this introduction. Based on public input and management considerations, Alternative E was developed and presented in the draft EIS as the Preferred Alternative. Alternative E is no longer the preferred alternative. After considerable public scrutiny, comment, and policy discussion the Proposed Plan was developed and is now described in Part II.

The Birch Creek National Wild River is included within the SNCA and receives special consideration in all alternatives. The exact boundaries and management prescriptions for the wild river were determined by the river management plan which became effective May 1, 1984. The river corridor boundaries are shown on Map 2-7 in Chapter II.

General Description of Potential Activities Common to All Alternatives and Proposed Plan

POTENTIAL IMPACTS

This EIS is not directed at a particular proposed action, but is rather a management decision allocating various parts of the Steese National Conservation Area to combinations of resource uses. Because of this approach, and the need to examine impacts resulting from a range of proposed actions, different action scenarios and general effects of these actions are presented first. Management actions specific to each alternative are discussed later in this chapter.

The primary emphasis of the SNCA is the management protection and enhancement of the Birch Creek NWR and the caribou populations using the area. However, because the area also has valuable mineral resources and their development can have great impacts on the environment, a generalized description of potential mineral development is presented in this section.

COMPARATIVE DESCRIPTION OF ALTERNATIVES

STEESE NATIONAL CONSERVATION AREA

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Recreation					
12% Primitive	92%* Primitive	92% Primitive	42% Primitive	7% Primitive	7% Primitive
12% Closed to ORV Except Snow Machine.	7% ORV Limited	100% ORV Limited	42% ORV Limited	7% ORV Limited	7% ORV Limited
108 Miles New Trail	20 Miles New Trail	47 Miles New Trail	84 Miles New Trail	84 Miles New Trail	84 Miles New Trail
7 New Facilities	3 New Facilities	16 New Facilities	29 New Facilities	32 New Facilities	32 New Facilities
WILDLIFE					
45% Caribou present & historical crucial habitat protected	95% Caribou present & historical crucial habitat protected	95% Caribou present & historical crucial habitat protected	60% Caribou present & historical crucial habitat protected	0% Caribou present & historical crucial habitat protected	0% Caribou present & historical crucial habitat protected
60% Dall sheep crucial habitat protected	95% Dall sheep crucial habitat protected	95% Dall sheep crucial habitat protected	60% Dall sheep crucial habitat protected	5% Dall sheep crucial habitat protected	5% Dall sheep crucial habitat protected
100% Peregrine falcon nesting habitat protected	100% Peregrine falcon nesting habitat protected	100% Peregrine falcon nesting habitat protected	100% Peregrine falcon nesting habitat protected	100% Peregrine falcon nesting habitat protected	100% Peregrine falcon nesting habitat protected
FISH					
Birch Cr. (mainstem) (1) habitat recovery period reduced from present situation	habitat recovery period maintained at present level	habitat recovery period reduced or shortened	habitat recovery period increased	Same as C	Same as C
South Fork B.C. & other south side tributaries Sport fishing opportunities maintained at present level	Sport fishing opportunities decrease from present level	Sport fishing opportunities maintained at at present level	Sport fishing opportunities decrease from present level	Same as C	Same as C

STEESE NATIONAL CONSERVATION AREA (cont.)

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Preacher Cr. (2) Potential sport fishing opportunity reduced from present level	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan	Same as Proposed Plan
MINERALS 75% of area open to placer and lode development	56,940 acres open to placer and lode development	56,940 acres open to placer and lode development	58% of area open to mineral entry	94% of area open to mineral entry	94% of area open to mineral entry
75% open to Oil and Gas leasing	0 acres open to Oil and Gas leasing	0 acres open to Oil and Gas leasing	93% open to Oil and Gas leasing	93% open to Oil and Gas leasing	93% open to Oil and Gas leasing
WATER RESOURCES Manage for .7 ml/l and 25 NTU standard plus "0" effect on tributaries which presently have undeveloped claims	BLM will follow lead of ADEC & EPA	Water quality levels no lower than than current classification	Same as B	Same as B	Same as A
VEGETATION Allowing natural fire will be major change factor but will maintain natural pattern	Natural fire allowed	Same as A	Natural and prescribed fires	Same as C	Same as C Same as D
Localized development of area	Localized changes possible on 23% of area		Localized development change possible on 58% of area.	Localized development possible on 93% of area	
SOILS No change	No change	No change	No change	No change	No change
VISUAL RESOURCES Maximizes protection of scenic values on 100% of the area	Provides moderate protection on 100% of the area	Provides moderate protection on 100% of the area	Provides moderate protection in the primitive areas (42%) only	Provides moderate protection in the primitive areas (6%) only	Provides moderate protection in the primitive areas (6%) only

STEESE NATIONAL CONSERVATION AREA (cont.)

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
CULTURAL RESOURCES					
A field sampling or Class II Inventory will be conducted on 88% of the area; site-specific or Class III Inventories will be conducted on the basis of the Class II results and as development demands	Class III Inventories will be conducted for all proposed surface-disturbing activities	A Class II Inventory will be conducted on 88% of the area; Class III Inventories will be the same as the Proposed Plan	A Class II Inventory will be conducted on 56% of the area; Class III Inventories will be the same as the Proposed Plan	A Class II Inventory will be conducted on 84% of the area; Class III Inventories will be the same as the Proposed Plan	A Class II Inventory will be conducted on 71% of the area; Class III Inventories will be the same as the Proposed Plan
SUBSISTENCE					
No subsistence restriction	No subsistence restriction	Same as A	Same as A	Potential subsistence issue dependent on degree and location of development	Same as A
SOCIAL AND ECONOMIC CONDITIONS					
70% of area open to development opportunities, but leasing restricted. Cost of operating will double	Area closed to new development except for existing claims	Same as A	58% of area open to development opportunity	93% of area open to development	Same as D

*Although in the existing situation 92% of the Steese NCA is classified as Primitive ROS, existing mining operations may reduce this by 15-20% through direct and indirect impacts.
(1) Sport fishing opportunity in mainstem Birch Creek presently does not exist and probably will not exist for the life of this plan.
(2) Potential sport fishing opportunity could be changed to real opportunity if access is improved.
However, the impact of turbid water from increased placer mining activity on grayling sport fishing may decrease those opportunities.

RECREATION MANAGEMENT

Throughout all of the Alternatives and the Proposed Plan, the recreation management program would attempt to provide for a wide range of recreational opportunities in either a primitive or a semi-primitive motorized setting. The proportion of the area managed for primitive values varies with each alternative. In all cases, Birch Creek National Wild River and its associated corridor would be managed in compliance with the existing river management plan. Limited facilities would be developed outside the river corridor to enable the public to enjoy the area. Visitor-use management including monitoring use, compliance, and visitor safety; providing maps and brochures; and installing signs would be implemented to varying degrees in all cases. Units identified for primitive management would be managed to protect their wilderness characteristics. Units identified for semi-primitive motorized management would be managed to allow multiple use of resource values without impairing recreational values.

Some of the alternatives propose development of recreational facilities outside the boundaries of the SNCA. This was suggested because of the very limited access to the area. Trailheads and campgrounds on the Steese Highway, outside the SNCA, would be more accessible to a wider range of users and still facilitate recreational use of lands inside the boundaries.

Following is a description of various types of recreational facilities proposed in the alternatives:

Trailhead Sites

These sites will be one to three acres in size, will provide a parking area for 5-10 vehicles, and include a bulletin board, trailhead sign and other pertinent information about the area.

Campgrounds

Campgrounds will generally be of limited size, designed to blend into the environment and constructed to BLM standards. They will include individual areas for vehicle parking, bulletin boards, vault toilets, trash receptacles, picnic tables, and sites for overnight camping. A recreation project plan will be prepared for each campground, and will include details on the number and layout of sites, signing requirements, and feasibility of providing drinking water. Such sites would encompass five to 10 acres of roadway, camp pads, and support facilities.

Picnic Areas

Picnic areas will be limited in size and number and generally will be developed in conjunction with scenic pullouts. They will include bulletin boards, vault toilets, and trash receptacles and interpretive information when appropriate. A recreation project plan will be prepared for each picnic site.

Shelters

Small public use shelters will be developed at selected locations along the trail system to be used both as emergency shelters and for overnight camping. They will be suitable for summer or winter use.

Trails

Both summer and winter trails have been proposed for construction. Most trail segments have been selected to protect the wilderness character of the area and will require only physical marking on the ground or minor vegetative clearing, rather than more traditional and expensive trail construction methods. The proposed trails are in addition to existing trails, which require only continued maintenance or minor signing.

WILDLIFE HABITAT MANAGEMENT

The wildlife habitat management program in all alternatives would emphasize habitat protection, maintenance, and habitat improvement. Identification and monitoring of wildlife distribution, movements, and use areas would be required to gain information necessary to assess the effects of land use activities and determine habitat condition and trends. Monitoring information would also be used to formulate possible measures to avoid or mitigate possible adverse effects on wildlife from land use activities. The wildlife habitat program would be implemented in cooperation with the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service - Endangered Species Office.

Habitat protection in the SNCA would emphasize protection of crucial habitats. Crucial habitats are wildlife use areas which are necessary for perpetuation of the species or population and which provide an essential element of the life cycle for that species or population. Crucial habitats for wildlife in the SNCA are listed in Table 1-2.

CRUCIAL USE AREAS FOR VARIOUS SPECIES AND SPECIES GROUPS

Table 1-2

Species/Group	Crucial Use Area
Caribou	Calving (present and historical), movement routes (present and historical)
Dall Sheep	Mineral licks, movement routes, lambing, associated escape terrain, winter range
Moose	Late winter range, mineral licks

Grizzly Bear/Black Bear	Denning (winter), seasonal high use/high prey density
Peregrine Falcon/Other Raptors	Nesting, prey gathering
Furbearers	Denning (reproduction), seasonal high use/high prey density
Waterfowl	Nesting, overwintering (potential)
Small Game	Winter concentrations
Land/Shore Birds and Small Mammals	Concentrations which are crucial for predator prey gathering
Fish	Spawning areas, overwintering areas

Crucial habitats can be protected through the avoidance or mitigation of possible adverse effects of land use activities, by withdrawing specific areas from certain land use activities or by designating Special Management Areas.

Mitigating measures to avoid or minimize possible adverse effects, within the constraints of the Surface Management Regulations (43 CFR 3809), would be developed through the environmental assessment (NEPA) process. Three forms of mitigation are analyzed within the alternatives of this EIS. (1) Restriction or alteration of timing, location, and extent of a proposed land use activity may be required to avoid or minimize adverse effects. Crucial habitats and use periods associated with surface use restrictions or aerial limitations that may be required Part Two, Table 9-2. The specific crucial habitats to be protected vary by alternative. (2) Some alternatives designate Special Management Areas. These are areas where crucial habitats occur for one or more priority species of wildlife. Areas designated as SMAs have high value to the maintenance of populations and habitat use opportunities for selected priority species, particularly caribou. Emphasis on habitat protection in SMAs will require proposals for any land-disturbing use within those areas, to include a mitigation plan that describes discrete phases and actions of the proposed activity. (3) Other crucial habitats are withdrawn from mineral entry. This is the strongest of the measures available and is used only when other forms of mitigation are felt to be inadequate. Development of measures to avoid or mitigate possible adverse effects of the proposed land use would be cooperatively developed with the ADF&G. The mitigation plans would be made available to ADF&G to ensure compatibility with their management goals and objectives.

Habitat improvement for moose and other species will occur in all alternatives through implementation of the Alaska Interagency Fire

Management Plan: Upper Yukon-Tanana Planning Unit, Map 1-1. Additionally, prescribed burns and mechanical treatment of riparian willow stands may be used to reestablish or improve habitat in some alternatives.

Management practices for the peregrine falcon, an endangered species, would include (1) implementation of monitoring activities to obtain information for impact assessment, (2) development of measures to mitigate possible adverse effects, and (3) the protection measures recommended by the Peregrine Falcon Recovery Plan, U.S. Fish and Wildlife Service, 1982 (Appendix E).

The intensity of management to be applied in the wildlife habitat program varies from alternative to alternative. Specifically, intensive management for selected priority species would include the following actions.

(1) Implementation of detailed, high level inventory, monitoring and studies to gather information for input into specific land management decisions.

(2) Involvement and input of detailed information into the environmental assessment (NEPA) and surface protection (43 CFR 3809) processes to identify, mitigate, or avoid negative impacts to priority species and habitats.

Limited management for selected species would include the following actions:

(1) Implementation of general inventory and monitoring efforts as a support action for input into land management decisions.

(2) Case by case involvement and input into the environmental assessment (NEPA) and surface protection (43 CFR 3809) processes to identify, and mitigate or alleviate impacts when possible.

FISHERIES HABITAT MANAGEMENT

Inventory and monitoring of fish populations and habitat will be performed in all alternatives.

MINERALS MANAGEMENT

Exploration Activities

Because this EIS is not directed at a particular mining operation, a general description of the exploration and development activities and impacts which would likely happen in the SNCA will be presented here. Exploration or prospecting for placer or lode deposits can be accomplished in a number of ways. Initially, an area with potential for mineral deposits is identified by looking for favorable geology. Such an

area would have the correct source rocks and, for placer minerals, some method to remove, transport, and concentrate the minerals. Next, the area is reconnoitered by using geophysical and geochemical prospecting techniques to identify variations from the earth's normal crust, such as magnetic variations, degree of resistivity, gravity or radioactivity or subsurface structural characteristics. Instruments to measure these variations can be carried on foot or can be airborne, using either helicopter or fixed-wing aircraft.

Geochemical prospecting requires hand sampling of rock and sediment. Mapping of this data involves little or no surface disturbance. Temporary field camps would probably be used to house workers doing the field work during the summer months.

Before development of a mineral deposit occurs, a company or miner will collect field samples. In a typical placer operation, many "pan" samples are collected from the creeks. Where panning or geochemical sampling indicates promising areas, further testing of the placer deposit can be accomplished by digging sample holes or trenches. This may be done by hand or with earthmoving equipment such as a backhoe. Holes are normally dug perpendicular to the course of a channel, across the "pay zone." Placer sampling may also be done by means of a churn or resonating drill.

Lode sampling begins with a geologic mapping effort. Rock samples and pan concentrates will be taken on a regular grid interval. These samples undergo laboratory testing to determine mineral content. Mineral concentrations above normal indicate the areas that require further exploration. A rotary drill would then be used for further sampling. Drills can be moved from one location to another mounted on tractor-pulled skids or on all-terrain vehicles, or lifted in and out of areas of difficult access by helicopters. Sampling or drilling is usually done in a grid pattern to establish the quality and quantity of the deposit. After it is determined that the deposit can be developed economically using sound mining practices, mining operations can begin.

Placer Mining Operations

After the initial delineation of a placer deposit, the miner has many options for methods of mining the material. A typical placer operation will employ 3-10 persons and disturb about five acres per year. The operation is conducted with at least two bulldozers (D-6 through D-9 size), a sluice box, and sometimes a backhoe and a front-end loader. One crawler tractor is used to clear overburden and vegetation and to push mineral bearing gravels into the sluice box for processing. The gravels are commonly cut from a face nearby, but may be extracted from the creek channel itself.

Material is run across a screen to remove the large rocks before being deposited into the sluice which can be 18" to 48" wide and up to 75 feet in length. Water for the sluice is either diverted from the stream and moved to the sluice box by gravity in a ditch or pipe system, or by a motorized pump.

During sluicing operations, the outwash of sands and silts are deposited in settling ponds to remove settleable solids from the water. The second bulldozer moves material from the end of the sluice and may stockpile or level the tailing areas on the claims that have already been mined. In an operation of this size, 500 to 1,000 cubic yards of material can be moved each day. Ten to thirty cubic feet of water may be used for washing the gravels. However, these figures vary considerably with the many different methods of mining and with the size of the operation. Water used is sometimes recycled during the mining operations.

Settling ponds alone do not remove all settleable solids and, due to the fine clays and silts, do not remove the turbidity from the water. Turbid water can be visible miles downstream from mining operations. Techniques to mitigate turbidity such as recycling, floculants and complex processing plants have been introduced in recent years. These techniques have not proven to be cost effective.

Operations may continue in the same creek or area for many years depending upon mineral occurrence, economic and other factors, and an area may also be remined several times. When an area has been mined out, tailing piles will be leveled and the area recontoured. The ground is usually left to revegetate naturally. Settling ponds may be breached and recontoured.

Most placer mining operations in Alaska last about four months each year. Additional time is customarily spent at the mine site to clear overburden, maintain and repair equipment, set up camp, and complete exploration drilling programs or similar exploration and/or development work. Support facilities may include a bunkhouse and/or cookhouse, workshop and storage area for equipment, and sometimes an airstrip for access. Transportation into the camp and mining operations is usually over trails or roads suitable for four-wheel drive vehicles or all-terrain vehicles.

Lode Deposit Operations

The economics of scale and large mechanized equipment allow low grade ore bodies to be mined more economically as an open pit. The more extensive the deposit the wider and deeper the pit will become. Cost increases dramatically with depth. Large tonnages are mined daily. Up to 10,000 tons per day could be expected. An open pit might encompass 300 to 600 acres with the tailings and overburden covering another 400 to 800 acres. Although the overburden can be revegetated, the mine pit of a large operation is normally lost to other uses.

A more likely scenario for this area would be a small- to medium-scale underground mining operation. These mines can employ from a dozen to 100 people. This operation would likely involve sinking a shaft in, or adjacent to, the vein deposit where the rock types and mineral deposition would dictate ore extraction. Support facilities would likely include an access road, a processing plant, shop, bunkhouse/cookhouse, and

administrative facilities. A tailing disposal area would be required. Typically, these operations mine 50 to 100 tons of ore per day and cover approximately 60 acres. All such operations would require that a plan of operations be submitted. An environmental assessment or statement would be completed before a plan would be approved.

Mineral Leasing

GEOLOGIC ANALYSIS. The limited geologic information available for the SNCA indicates that the area has virtually no potential for economic quantities of oil or gas. The presence of igneous intrusives, volcanic rocks, and sedimentary rocks which contain hydrothermal deposits of copper, lead, and zinc indicate that the area was subjected to high temperatures. These high temperatures, in all probability, cooked the organic constituents of the rocks past the petroleum-producing stage.

Oil and gas leasing would not be permitted in alternatives A or B. Leasing would be permitted in alternatives C, D, E and the Proposed Plan. The potential for oil and gas development, although remote, does exist. Therefore, a development scenario is presented in Appendix C.

CULTURAL AND PALEONTOLOGICAL RESOURCE MANAGEMENT

Inventory in the Birch Creek NWR corridor, isolated cultural and paleontological finds in the SNCA, and the large number of Pleistocene mammal bones discovered during nearby mining activities indicate that the area has been in use by man possibly for the last 20,000 years.

Class I literature research and archeological finds indicate that Kutchin, and possibly Tanana, Athabaskan people have hunted moose, Dall sheep, caribou and used the fish resources in Birch Creek and throughout the SNCA.

In addition, historical structures, artifacts, and trails in the area, as well as the historical record, indicate that the area has been continually used by miners, prospectors, and trappers since 1893.

Federal legislation and regulation dictates that BLM conduct site-specific Class III inventories prior to any surface-disturbing activity. This allows for the identification and mitigation of adverse effects to sites which may be eligible to be placed on the National Register of Historic Places.

The Class I or literature search has provided the information on past use of the SNCA. This work was completed prior to the undertaking of a Class II or field sampling inventory of the Birch Creek NWR corridor and has yielded data applicable to the SNCA.

FIRE MANAGEMENT

Means to reduce the threat from wildfire would be stipulated into any new FLPMA land use leases issued or shelter cabins provided for recreation

use. Use of protective measures would also be encouraged adjacent to any existing or new structures.

Alternatives

Each alternative considered in detail represents a comprehensive plan for managing all lands and resources within the SNCA. However, what differentiates one alternative from another is the way each of the six principal issues would be resolved if that alternative were selected for implementation. Thus, selection of the Preferred Alternative was based largely on the effects of the alternative in resolving the issues.

The Draft Plan and Environmental Statement, published in January of 1984, set forth Alternative E as the preferred alternative at that time. That alternative is summarized in this Final EIS as Alternative E, but it is no longer the Preferred Alternative. The Proposed Plan, as described in Part II of this document, has been selected as the agency's Preferred Alternative and establishes the management direction for resolving the primary issues as summarized below.

DESCRIPTION OF THE PROPOSED PLAN

Summary

The Proposed Plan would emphasize the protection of caribou range to assure that areas used by caribou in the past will remain available to them in the future. This alternative will protect the wild and scenic character of Birch Creek and improve the water quality. Recreation and mineral development will be permitted in areas and in ways consistent with multiple use principles and the maintenance of environmental quality.

Detailed management direction is presented in the Proposed Plan Section in Part II of this document. The following is a breakdown of the major land use allocations and management units for the Area.

STEESE NATIONAL CONSERVATION AREA

Management Units:	Acreage	% of Total Area:
Primitive	68,000	6%
Semi-primitive	351,000	29%
Semi-primitive special	566,000	46%
Semi-primitive restricted	175,000	14%
River corridor	57,000	5%
Research Natural Areas	3,000	less than 1%
Total	1,220,000	
Open to mineral entry	917,000	75%

Recreation Management

The river corridor and other areas designated as primitive are shown on the Proposed Plan Map in the map pocket and would be managed to protect primitive values. This would be accomplished through limited access and development of facilities: areas designated as semi-primitive would be managed to protect associated values. Existing trails and recreation facilities would be maintained. New developments including shelter cabins and trails would be developed as shown on the Proposed Plan Map. Access would be improved by developing a new river take-out near Jump-Off Creek and developing new access trails.

Rights-of-way for recreational access across State lands would be acquired as necessary.

Wildlife and Fish Habitat Management

Wildlife habitats would be managed to increase wildlife populations and habitat to facilitate achieving ADF&G objectives. Emphasis would be placed on maintenance of populations and habitats in areas where conflicts with mineral development occur. Priority species for intensive management would be caribou, Dall sheep, and peregrine falcon. Habitat improvement actions for moose and other species would occur through prescription fire and implementation of the Alaska Interagency Fire Management Plan. Detailed high level inventory and monitoring of the priority species would facilitate intensive management actions. An SMA, which coincides with the Semi-Primitive Motorized Special Management Unit, would be established that would encompass present and historical caribou and Dall sheep crucial habitats as shown on the Proposed Plan Map in the map pocket. Areas closed to mineral entry for habitat protection purposes include Dall sheep use areas in the Preacher Creek watershed adjacent to the White Mountains National Recreation Area, portions of Dall sheep crucial habitats in the South Fork watershed and portions of the Fortymile caribou herd calving area in the South Steese. Raptor habitat along Birch Creek is closed to mineral entry as a result of the Birch Creek NWR designation.

Fish Habitat would be managed to maintain the present quality of fish habitat in those tributory streams that are largely undisturbed at present. Emphasis would be placed on arctic grayling habitat since arctic grayling is the species of primary interest. Management actions would involve the application of mitigating measures on development activities such as mining or road construction. Fish habitat and populations would be monitored regularly.

Minerals Management

Implementation of the Surface Management Regulations would be improved. A minimum of three field examinations per operation during the mining season would be conducted.

A total of 917,000 acres outside of the wild river corridor, the primitive areas, and the wildlife protection area would be open to location and entry under the 1872 Mining Law as amended.

The Bureau would initiate a patent examination at the request of the claimant or a validity examination in the case of flagrant unauthorized use or if the Authorized Officer determines that the land is needed for a federal program.

A total of 917,000 acres would be opened to geothermal and oil and gas leasing. No lands would be open to coal leasing. (43 CFR 3100 and 43 CFR 3200).

A total of 917,000 acres would be open to leasing of non-energy minerals in accordance with appropriate leasing regulations (43 CFR 3500).

Disposals of sand, gravel, rock and other saleable minerals would be made only if compatible with other provisions of this plan (43 CFR 3600).

Due to the limited information available on mineral resources in this area, exploration on lands closed to mineral entry would be allowable with the prior approval of the Authorized Officer. No preference right would be earned for any discoveries during exploration.

MINERAL ACTIVITIES. North Steese. During the next five to ten years mineral development can be expected to intensify in the following areas of the North Steese.

North Steese	Acres Disturbed
Convert Creek	5
Upper Middle Fork Creek	5
Upper North Fork Preacher Creek	10
Bachelor Creek	5
Loper Creek	5
Preacher Creek	10
	40 acres

These calculations are based on an average annual disturbance of 5 acres per placer operation. An 18-mile trail into Bachelor Creek-Preacher Creek and a 6-mile trail from Porcupine into Loper Creek are predicted. The trails are expected to average 15 feet in width, or an additional 44 acres of disturbance in the North Steese Area. There will be increased hardrock exploration in the vicinity of the igneous plutons and particularly in areas of upper Convert Creek, American Creek and Bachelor Creek.

South Steese. In areas of the South Steese, north of Birch Creek, a 10-mile trail is expected to be developed into Frying Pan and Great

Unknown Creeks. Additional yearly mining is expected on Frying Pan Creek (5 acres), Great Unknown Creek (5 acres), and South Fork Harrison (50 acres), for a total of 60 acres per year.

All placer operations south of Birch Creek will be required to meet a zero percent downstream discharge in order to meet the clear (and/or drinking) water standard set for these streams. Zero downstream discharge would require total recycling of all water and removal of all sediments from the flood zone. This could add up to 100 percent to the cost of mining these streams.

Additional staking of claims can be expected on those streams that are open. However, there would be limited interest in full-scale mining until technology or gold prices improve.

No lode properties are expected to be developed over the next 5 to 10 years, but exploration and claim staking should occur. Up to 1,000 lode claims may be filed around the tungsten prospect on Puzzle Gulch and Caribou Creek.

Water quality would be improved in Birch Creek NWR. This would be accomplished by (1) reducing the amount of sediment released into Birch Creek and its tributaries by placer mines, including those outside of the SNCA boundaries, (2) allowing no degradation of existing water quality in Harrington Fork, Clums Fork, Sheep Creek, and the South Fork of Birch Creek, and (3) requiring reclamation of ground disturbed by mining to prevent stream sedimentation caused by erosion.

Regulation of mining to reduce sedimentation is discussed in detail under the minerals section. Water quality would be measured at least once a month during the summer months at several points on Birch Creek and at the mouths of Harrington Creek, Clums Fork, Sheep Creek, and the South Fork of Birch Creek. The information would be used to determine whether or not mining permit requirements are adequate to protect water quality and whether or not those requirements are being met.

A sufficient instream flow would be maintained in Birch Creek to meet the purposes for which the NWR was established. An in-stream flow study, already identified in the Birch Creek NWR Plan, would be conducted to determine how much instream flow is needed for the NWR. The federally reserved water right for the NWR needs to be quantified.

Fire Management

Fire would be managed according to the standards established in the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Area. Fire management would enhance primitive and semi-primitive recreational values by maintaining vegetative and visual diversity and increasing wildlife habitat quality. Fire management options are described in Appendix A. The areas in which particular options would be

applied are shown on Map 1-1. In addition to the options shown on Map 1-1, any inhabited cabins would be designated as Critical Protection Sites and would receive first priority for fire suppression. Other cabins, structures, and historical cabins have been designated to receive protection.

Fuels management and other strategies would be used to reduce the wildfire hazard to structures requiring fire protection.

The level of fire suppression would be that necessary to protect life, property, and historical cabins and to prevent the escape of fire to areas requiring a higher level of fire suppression. There are no areas within the SNCA where fire suppression is required to protect natural resource values. If increasing amounts of recreational or other uses mandate an increased level of fire protection, the level of suppression for any area can be changed. The Fire Management Plan is subject to annual review and modification.

Prescribed burning would be used to break up large areas of continuous fuels, improve wildlife habitat, and increase vegetative diversity. Prior to any prescribed burn, the area would be thoroughly investigated to identify any inhabited or historical cabins, other structures, or other critical protection sites, and appropriate measures would be taken to protect them from fire.

Off-Road Vehicles and Aircraft

Areas where a primitive ROS classification is to be maintained would be closed to ORVs, except for snowmachines. Any other use of vehicles would require special authorization, which would be granted only when necessary to provide access to inholdings or for other legitimate purposes.

In all other areas, the use of any vehicle under 1,500 pounds GVW would be unrestricted. The use of vehicles of greater than 1,500 pounds GVW off a valid right-of-way would be allowed by authorization only. Such authorization would be given only when necessary to provide access to inholdings or for other justified purposes based on analysis of the need and compatibility with the RMP. Approval would be given subject to conditions designed to minimize the impact to the environment or to other land uses. Crossing the wild river corridor would be allowed only if there were no economically feasible and prudent alternative. Authorization for vehicle use could be granted under a mining plan of operation (43 CFR 3809), through a right-of-way or permit (43 CFR 2800 or 43 CFR 2920), or by other appropriate means.

An ORV monitoring program would be developed and implemented that would document existing trails and their condition, and document newly-disturbed areas of cross-country use. Information gained would provide a basis for determining rehabilitation needs, monitoring recovery, and establishing a threshold as to when impacts are becoming excessive.

Aircraft use would generally be unrestricted.

MAP 1-1

FIRE MANAGEMENT
PROPOSED PLAN

Full protection area
Modified action area
Limited action area

5 0 5 10 15
MILES

Little Crazy Mountains
Crazy Mountains
Boulder Hill
Preacher Creek
Central
Steese Highway
Porcupine Dome
Eagle Summit
Mastodon Dome
Ketchem Dome
Harrison Creek
Birch Creek
Harrington Fork
Birch Creek
South Fork
Clums Fork
Steese Highway
Mt. Prindle
Chena Hot Springs

Rights-of-Way and Other Realty Actions

Four transportation corridors would be established under the authority of Section 503 of FLPMA.

In order to prevent proliferation of rights-of-way, all future rights-of-way would, as far as possible, be located in one of these four corridors. If it were to become necessary for a right-of-way to extend beyond a corridor, existing trails would be followed whenever possible. Several users might be required to use the same right-of-way and to jointly maintain it. Holders of rights-of-way for roads or trails would be required to allow public access for recreation unless there were a compelling reason to deny such access.

Land exchanges would be proposed in order to acquire the approximately 14,000 acres of State lands within the boundaries of the SNCA.

Other realty actions would be permitted if compatible with the land uses designated in this plan.

Visual Resource Management

Scenic quality would be maintained by adhering to Visual Resource Management objectives while implementing a program of visual assessment of all surface-disturbing activities such as new access trails, mining activities, ORV use, support structures and developments, recreational facilities, etc.

The river corridor would be managed for VRM Class I. Primitive areas and the river would be managed for VRM Class II, and all other areas would be managed for VRM Class III.

Cultural and Paleontological Resource Management

Historical structures, objects and prehistoric artifacts within the SNCA would be located and identified by means of a cultural inventory prior to any development actions.

Research Natural Areas and Areas of Critical Environmental Concern

Research Natural Areas would be designated at Mount Prindle and Big Windy Hot Springs. No ACECs would be designated.

Forest Management

Forest products would be reserved for local use only. No commercial timber harvest would be permitted.

Subsistence

Compliance with Section 810 of ANILCA and BLM subsistence procedures (Instruction Memorandum AK-84-339, Appendix G) is required for any action

to withdraw, reserve, lease, or otherwise permit the occupancy, or disposition, of public lands. The action can be initiated by BLM or by some other agent, as long as BLM has discretion to substantially affect the result. Subsistence values in SNCA include the arctic grayling fishery, caribou, etc., which are described in Chapter II of the EIS portion of this document.

Sensitive and Rare Plants

Inventories for sensitive and rare plants would be conducted as required for clearances for proposed surface-disturbing activities. Sites would be protected by modifying proposed actions which threaten sensitive or rare plant habitats or by denying those actions which cannot be modified. If actions cannot be modified or denied, plant material salvage will be attempted.

DESCRIPTION OF ALTERNATIVE A

Summary

This is the "no action" alternative.

The management goal is to maintain the present condition of most resources without making major changes in user restrictions or management techniques.

Present levels and systems of resource management would be continued. This generally means a low level of management for most resources. Present trends would generally continue.

The Bureau would respond to requests for various actions but would not usually initiate actions. Activities which are permitted now would continue to be permitted, and those which are prohibited now would continue to be prohibited.

Recreation Management

Recreation management would be aimed at maintaining existing Recreation Opportunity Spectrum classifications, which are almost entirely primitive and semi-primitive non-motorized as shown in Table 1-3. The ROS system is explained in Chapter III. Existing trails and facilities would be maintained. New facilities may be developed if they will not change the existing ROS classification. Two campgrounds and several new hiking trails would be constructed, as shown in Table 1-4. Some of these facilities would be outside the SNCA; however, they would facilitate recreation use within the Area by providing access or serving as "jump-off points." Facility locations are shown on Map 1-2.

Non-federal lands or interests in lands within the river corridor would be acquired whenever possible. Rights-of-way for recreational access across State lands would be acquired where necessary.

MAP 1-2

RECREATION
ALTERNATIVE A

- Primitive
- Semi-primitive non-motorized
- Semi-primitive motorized
- Roaded natural
- Pinnell Mountain Trail
- Recreation facilities
- Proposed trail

N

5 0 5 10 15
MILES

Little Crazy Mountains
Crazy Mountains
Preacher Creek
Central
Steese Highway
Porcupine Dome
Eagle Summit
Twelvemile Summit
Harrington Fork
Birch Creek
South Fork
Steese Highway
Chena Hot Springs

Recreational use would be managed through facility location and design, informational signs and brochures, and the existing low level of visitor services.

ROS CLASSIFICATIONS IN ALTERNATIVE A

Table 1-3

ROS Class	Approximate Acreage	% of Total Area
Primitive	1,124,250	92%
Semi-primitive non-motorized	81,750	7%
Semi-primitive motorized	13,320	1%
Roaded natural	680	less than 1%

RECREATION FACILITIES IN ALTERNATIVE A

Table 1-4

Facility	Existing	Proposed	Totals
Campground	2	2	4
Interpretive Site	0	1	1
Trailhead	2	0	2
Hiking Trails	27 miles	30 miles	57
Shelters	2	0	2

Wildlife Habitat Management

Present wildlife habitat conditions and trends would continue. Priority species would be caribou, Dall sheep, moose, and peregrine falcon. Habitat improvement would occur indirectly through implementation of the Alaska Interagency Fire Management Plan. Intensive management of the priority species would facilitate mitigation of major adverse impacts to crucial habitats through the environmental assessment and surface protection processes on a case by case basis. Inventory and monitoring of distribution and use areas of priority species would occur in sufficient detail to provide general input into the decision-making process. No Special Management Areas would be established in this

alternative. No areas would be withdrawn from mineral entry for specific habitat protection purposes. However, the entire area is closed to mineral entry, subject to valid existing rights, as specified by ANILCA.

Fisheries Habitat Management

Minimal inventory and monitoring would be performed to determine trends in general habitat condition.

Minerals Management

All lands will remain closed to new location of mining claims and to all types of mineral leasing. Activities on existing mining claims will be regulated according to the Surface Management Regulations (43 CFR 3809).

Requests for the extraction of sand, gravel, stone, or other saleable minerals would be handled on a case by case basis, in accordance with the Mineral Material Disposal Regulations (43 CFR 3600).

Within this alternative only the perfected mining claims can be developed. This limits mining in the SNCA entirely to placer deposits. There are 782 perfected claims within the SNCA.

Water Resource Management

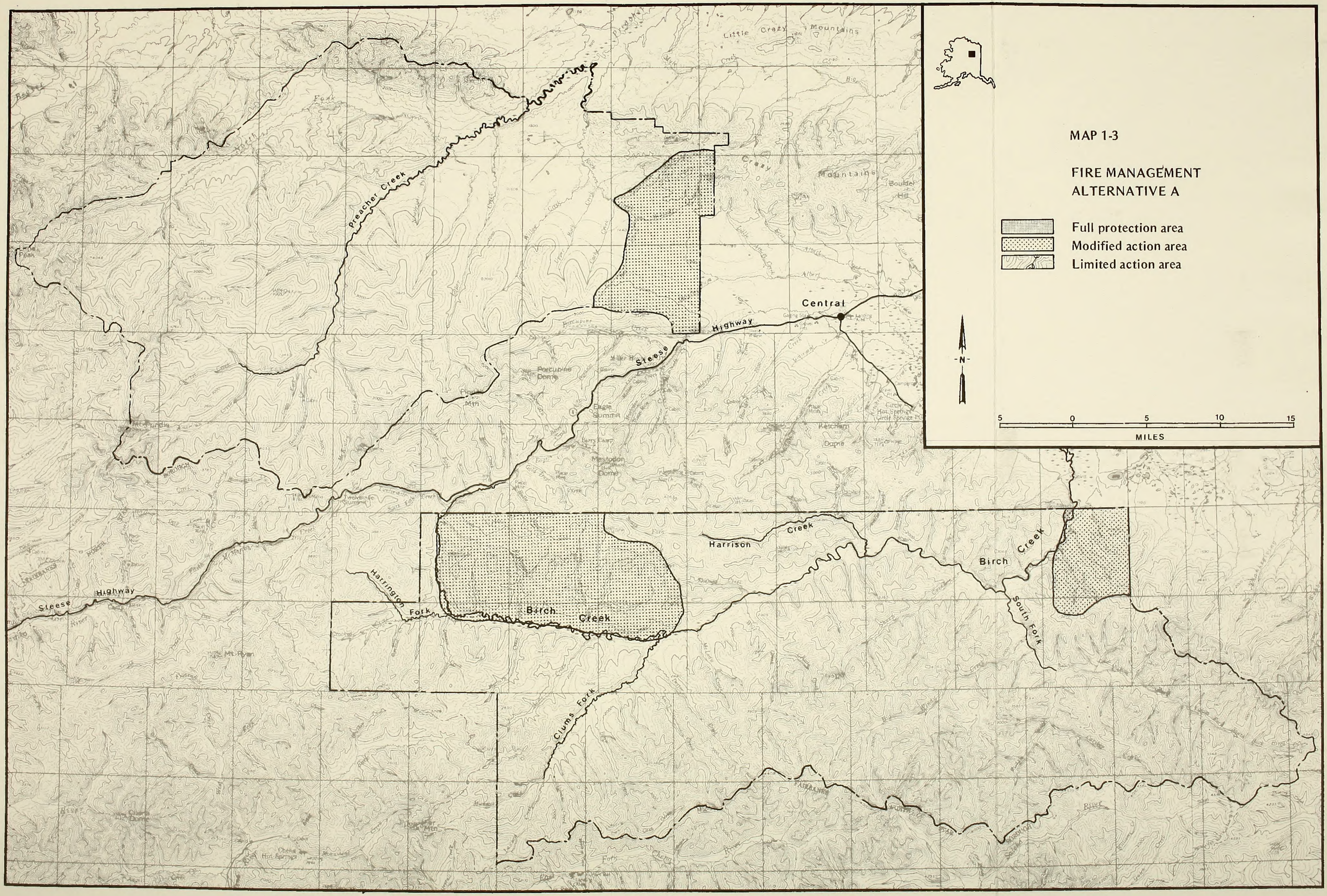
The Bureau will cooperate with the Alaska Department of Environmental Conservation in water quality management. The current practice of collecting data on both water quality and quantity would continue when trips are made to the Area. Enforcement of Surface Management Regulations (43 CFR 3809) would continue at current levels.

An in-stream flow study on Birch Creek would be conducted to quantify the water right for recreational purposes. BLM would respond to requests for floodplain determinations, water supply sources, and water projects related to proposed developments.

Fire Management

Suppression action would be taken on all fires until completion of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Following completion of the plan, fire management would be carried out according to one of the four options--critical protection, full protection, modified action, and limited action--described in Appendix A. The areas in which particular options would be applied are shown on Map 1-3. These designations are based on the probability of a fire escaping from the SNCA and on the need to protect life and property.

In addition to the options shown on Map 1-3, any inhabited cabins would be designated as critical protection sites and would receive first priority for fire suppression. Other habitable cabins and historical cabins may also be designated for protection.


Little Crazy Mountains
Preacher Creek
Crazy Mountains
Boulder Hill
Central
Steese Highway
Porcupine Dome
Eagle Summit
Ketchem Dome
Mastodon Dome
Harrington Fork
Birch Creek
Harrison Creek
Birch Creek
South Fork
Clums Fork
Steese Highway
Hot Springs
MAP 1-3
FIRE MANAGEMENT
ALTERNATIVE A
Full protection area
Modified action area
Limited action area
N
5 0 5 10 15
MILES

The Fire Management Plan would be reviewed annually and can be modified to accommodate new information or changing land use.

Off-Road Vehicles and Aircraft

Outside the wild river corridor, use of off-road vehicles would remain unrestricted. Within the corridor, ORV use would be regulated by the river plan. ORV users who cause undue damage may be held liable.

Aircraft landings would be unrestricted.

Rights-of-Way and Other Realty Actions

Applications for new-use authorizations for roads, material sites, communication sites, oil and gas pipelines, or any other uses would be considered on a case by case basis, and when appropriate, must comply with the approved river management plan for Birch Creek NWR.

Visual Resource Management

Management would generally be aimed at maintaining present scenic quality, which is high. Protection would be provided by responding (through NEPA assessments) to proposed actions which may threaten visual resources.

Disturbed areas (VRM Class V) within the wild river corridor would be rehabilitated if feasible. In other areas, rehabilitation generally would not be undertaken.

Cultural and Paleontological Resource Management

BLM would identify any sites of potential National Register significance and allow for the Advisory Council on Historic Preservation comment prior to any action which may impact such a site. No such sites have yet been identified. Surface management protection activities would include identification of paleontological resources.

Research Natural Areas and Areas of Critical Environmental Concern

No Research Natural Areas or Areas of Critical Environmental Concern will be designated. Designations of RNAs or ACECs will be considered if proposed by the public or other agencies. Some work on currently nominated RNAs has been started.

Forest Management

Applications for local use of forest products would be considered on a case by case basis.

Subsistence

Subsistence use and subsistence resources would be protected through environmental assessments of proposed actions and the enforcement of the Surface Management Regulations (43 CFR 3809). Subsistence resources which are utilized outside of the SNCA (such as caribou and the Birch Creek fishery) would receive the same consideration as subsistence resources utilized within the SNCA.

Sensitive and Rare Plants

Habitats of sensitive or rare plants would be protected from activities which might alter or destroy them. Management would be aimed at making it unnecessary to list the plants as threatened or endangered under the provisions of the Endangered Species Act.

Inventories for sensitive and rare plants would be conducted as funds are available or as required for clearances for proposed surface activities. Sites would be protected by modifying proposed actions which threaten sensitive or rare plant habitats or by denying those actions which cannot be modified. When actions cannot be modified or denied, plant material salvage will be attempted.

DESCRIPTION OF ALTERNATIVE B

Summary

Natural processes and environmental quality would generally be maintained or enhanced. This would require intensive management of most resources and activities. It would also require restrictions on some activities which are currently unrestricted and a stronger effort to enforce Surface Management Regulations.

Recreation Management

Management would be aimed at maintaining existing ROS classifications. Acreages within each class are the same as those shown in Table 1-5. Action would be taken to prevent or eliminate activities which conflict with those classifications. Emphasis would be placed on non-motorized recreation.

Existing trails and facilities would be maintained. New facilities may be developed if they do not change the existing ROS classification. Facilities would also be provided where necessary for resource protection. Campgrounds, hiking trails, and picnic areas would be constructed. Locations are shown on Map 1-4.

Land exchanges would be proposed to acquire State lands with high recreational value, as shown on Map 1-6. Non-federal lands or interests in lands within the river corridor would be acquired whenever possible. Rights-of-way for recreational access across State lands would be acquired where necessary.

MAP 1-4

RECREATION
ALTERNATIVE B

- Primitive
- Semi-primitive non-motorized
- Semi-primitive motorized
- Roaded natural
- Pinnell Mountain Trail
- Recreation facilities
- Proposed trail
- Vehicle access route

N

5 0 5 10 15
MILES

Little Crazy Mountains
Crazy Mountains
Preacher Creek
Central
Highway
Steese
Porcupine Dome
Eagle Summit
Mastodon Dome
Twelvemile Summit
Harrington Fork
Birch Creek
South Fork
Hot Springs
Steese Highway

Recreation use would be managed through facility location design and an increased level of visitor services, including signs, brochures, and field contact.

RECREATION FACILITIES IN ALTERNATIVE B

Table 1-5

Facility	Existing	Proposed	Totals
Campground	2	2	4
Picnic Site	0	1	1
Interpretive Site	0	5	5
Trailhead	2	3	5
Hiking Trails	27 miles	47 miles	74 miles
Shelters	2	5	7

Wildlife Habitat Management

The wildlife habitat management program would emphasize intensive management to maintain or increase wildlife populations and habitat to facilitate achieving ADF&G objectives. Priority species are caribou, Dall sheep, moose, peregrine falcon, other raptors, grizzly and black bear, furbearers and small game. Habitat improvement would occur through prescribed fire and implementation of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Management of the endangered peregrine falcon would emphasize maintenance and reestablishment of the nesting population and designation of formal critical habitat in all nesting and prey gathering areas. Detailed high level inventory and monitoring would be implemented to facilitate intensive management of priority species. No site-specific SMAs would be established. Areas withdrawn from mineral entry would include most crucial habitats and use areas. Areas not withdrawn from mineral entry include portions of caribou and Dall sheep crucial habitats in areas of existing mining claims.

Fisheries Habitat Management

Maintenance and enhancement of crucial arctic grayling habitat would be the prime emphasis of this alternative. Crucial grayling habitat consists of overwintering areas, spawning areas, and rearing areas. The maintenance of good quality habitat in the few remaining, relatively undisturbed, Birch Creek tributaries would be an objective. These tributaries are the South Fork of Birch Creek, Clums Fork, and Harrington Fork. An increased inventory program would identify crucial use areas and areas of potential conflicts. Fisheries expertise would be involved

in enforcement of Surface Management Regulations (43 CFR 3809), especially where conflicts may occur in crucial areas. The South Fork of Birch Creek would have priority in enforcement of Surface Management Regulations. Special stipulations may be applied to mining plans of operation in this area and in other areas considered crucial to the grayling fishery.

Minerals Management

Outside of the wild river corridor, holders of unperfected mining claims would be allowed to re-record those claims under the terms of Section 404 of PL 96-487. No lands would be opened to location of new claims.

A strong effort would be made to enforce Surface Management Regulations. More field inspections will be made.

The Bureau will initiate examinations on claims to determine compliance with all mining laws. Priorities for such actions would be established according to the importance of land for federal programs. First priority would be to examine claims within the wild river corridor.

All lands would remain closed to all types of mineral leasing.

In accordance with Mineral Materials Disposal Regulations (43 CFR 3600), disposals of mineral materials would be made in support of other land use actions authorized by this plan. For example, materials could be used in the construction of recreational facilities. Disposals may also be made for uses associated with valid existing rights if no feasible alternative exists.

Mineral exploration may continue on all lands according to current rules and regulations which are described in Alternative A.

Re-recordation of unperfected claims which are properly maintained and located would be allowed in this alternative. This would involve about 694 claims. The 2153 claims on the South Steese tungsten prospects are not included since they are currently abandoned.

Water Resource Management

Water resource management would be aimed at maintaining water quality levels no lower than the current Alaska Department of Environmental Conservation classification. This would generally require maintenance or improvement of existing water quality levels. The enforcement of Surface Management Regulations would be designed to achieve this objective.

A network of water resources monitoring stations would be established and visited on a regular basis.

An in-stream flow study would be conducted on Birch Creek to quantify the reserve water right for recreational purposes. BLM would respond to

requests for water supply sources and water projects related to proposed developments.

Fire Management

Suppression action would be taken on all fires until completion of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Following completion of the plan, fire management would be carried out according to one of the four options described in Appendix A. The areas in which particular options would be applied are shown on Map 1-5.

Designations have been made with the objective of trying to approximate a natural fire regime. Suppression activities would be kept to the lowest level consistent with the need to protect life and property and to prevent fires from escaping from the SNCA. Policy on inhabited cabins, historical cabins, and fire plan modifications is the same as in Alternative A.

Prescribed burning would be used to improve wildlife habitat and to manage fuels. Fuels would be managed in the lower Preacher Creek drainage to reduce the probability of large, severe fires in that area. Other areas where prescribed burning may be used will be identified as more information becomes available.

Prior to any prescribed burn, the area would be thoroughly investigated to identify any inhabitated cabins, historical sites, or other critical protection sites, and appropriate measures would be taken to protect these sites.

Fuels management and other strategies will be identified which will reduce the wildfire hazard to structures requiring fire protection.

Off-Road Vehicles and Aircraft

Management would be aimed at preventing erosion, adverse impacts to the predominantly primitive character of the area, or other resource degradation which may be caused by ORVs. Use of light ORVs would be largely unrestricted. Authorization may be granted for heavy vehicles to ensure access for miners, inholders, or others who may require special access. If such access routes must cross the wild river corridor, the number of crossing points would be limited to as few as possible. Crossing points would be selected so as to minimize adverse impacts and would be authorized only if there were no economically feasible and prudent alternative.

Use of vehicles of less than 1,500 pounds GVW would be unrestricted. Operation of vehicles over 1,500 pounds GVW off of a valid right-of-way would require authorization by the Authorized Officer.

Aircraft use would be generally unrestricted, except for possible seasonal restrictions on certain wildlife use areas.

Rights-of-Way and Other Realty Actions

Generally, only those realty actions which promote land uses designated by this plan or which are necessary to protect valid existing rights would be allowed. Other actions may be allowed if they are compatible with designated land uses, and if there are no reasonable alternatives.

As transportation needs become more clearly identified, the Authorized Officer may exercise his authority to designate transportation corridors to eliminate proliferation of rights-of-way. Several users may be required to use the same road or trail and to jointly maintain it.

Rights-of-way across the wild river corridor would be allowed if there were no economically feasible and prudent alternative and they are in compliance with the approved river management plan. The number of crossing points would be kept to a minimum. Crossing points would be selected in consultation with the users and the Alaska Department of Transportation and Public Facilities. Locations would be based on environmental and engineering considerations, and economic feasibility.

Land exchanges would be proposed to acquire all State lands within the boundaries of the SNCA. Exchanges would also be proposed to acquire State lands outside of the present boundaries which have high recreational value. These lands are identified on Map 1-6.

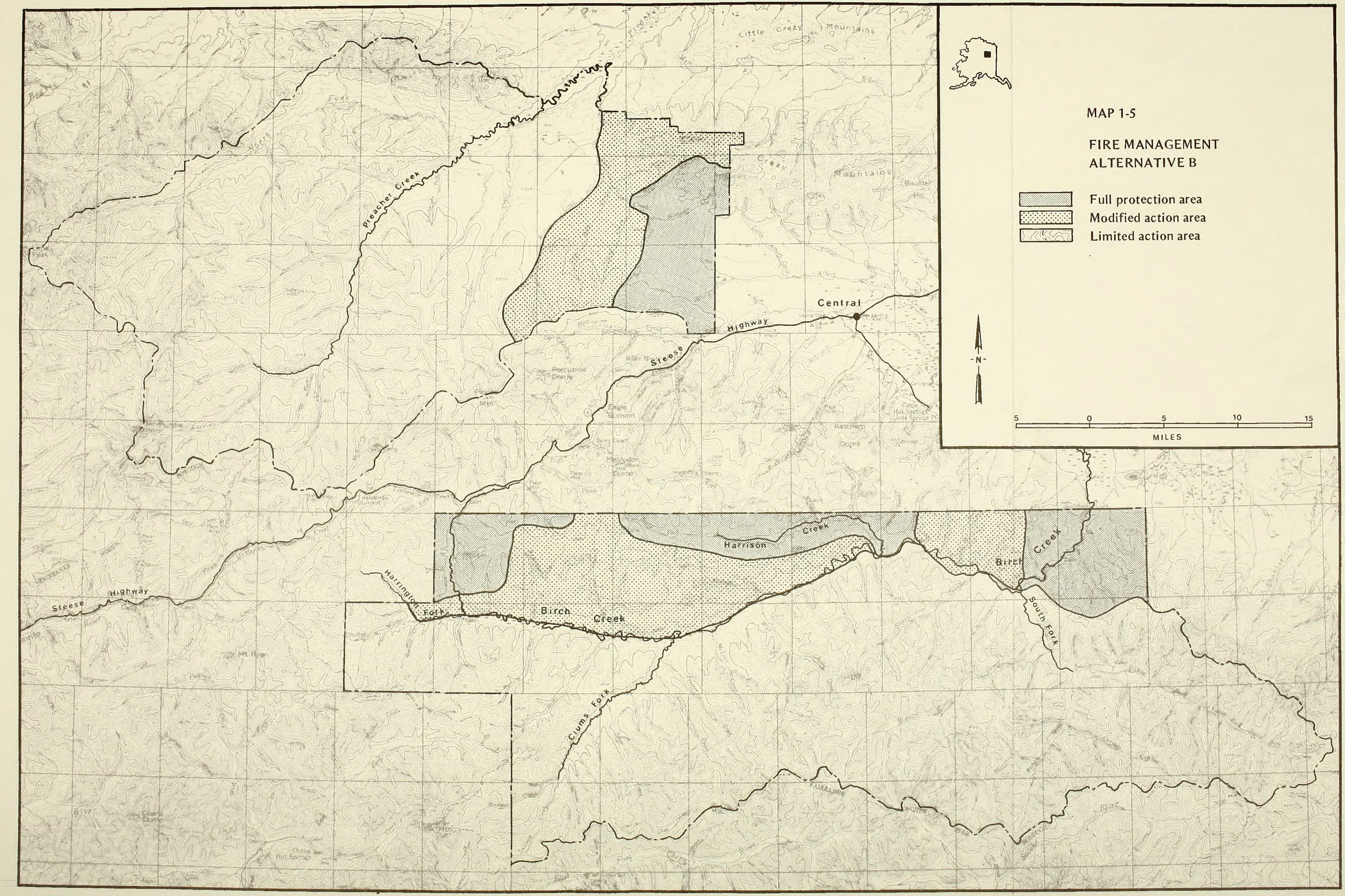
The Bureau may apply for rights-of-way across State lands to provide access to the SNCA.

Visual Resource Management

Present scenic quality would generally be maintained. Disturbed areas would be rehabilitated, if feasible. Scenic quality would be protected (through NEPA assessments and surface management regulations) by identifying and mitigating adverse impacts of proposed actions.

Restrictions on vehicle use and better implementation of Surface Management Regulations would provide better protection of visual resources. Mining activities in drainages that were previously undisturbed would probably meet VRM objectives for Class III areas on the long term, but not the short term of up to five years. After reclamation, short term impacts would be much the same as those in Alternative A. Drainages of particular concern are Clums Fork, Sheep Creek, Big Windy and the South Fork.

Fire or vegetation manipulation for wildlife habitat improvement would not be considered adverse impacts.


MAP 1-5
FIRE MANAGEMENT
ALTERNATIVE B
Full protection area
Modified action area
Limited action area
-N-
5 0 5 10 15
MILES
Little Crazy Mountains
Preacher Creek
Central
Steese Highway
Porcupine Dome
Eagle Summit
Mastodon Dome
Ketchem Dome
Harrison Creek
Birch Creek
Harrington Fork
Birch Creek
South Fork
Clums Fork
Steese Highway

MAP 1-6

REALTY ACTIONS
ALTERNATIVES B, C, D, and E

State lands to be acquired through exchange

N

5 0 5 10 15
MILES

Little Crazy Mountains
Crazy Mountains
Boulder Hill
Preacher Creek
Central
Steese Highway
Eagle Summit
Mastodon Dome
Dome
Harrison Creek
Birch Creek
South Fork
Harrington Fork
Birch Creek
Steese Highway
Clums Fork
Chena Hot Springs

Cultural and Paleontological Resource Management

BLM would identify any sites of potential National Register significance and allow for Advisory Council on Historic Preservation comment prior to any action which may impact such a site. No such sites have yet been identified. Surface management protection activities would include identification of paleontological resources.

Research Natural Areas and Areas of Critical Environmental Concern

Research Natural Areas would be designated at Mount Prindle and Big Windy Hot Springs. Descriptions and boundaries of these proposed Research Natural Areas can be found in Appendix B. Big Windy Hot Springs RNA would cover 12,733 acres. Mount Prindle RNA would lie partly in the SNCA and partly in the adjacent White Mountains National Recreation Area and would cover 2,800 acres in the SNCA.

Except for permitted research projects and possibly some hiking trails, no surface-disturbing activities would be allowed. The areas would be closed to off-road vehicles and camping to avoid disturbing research projects. Primitive campsites could be established outside the RNA boundaries and access improved in the form of developed trails, helispots, or airstrips. Hiking, hunting, and nature appreciation would be allowed. Developed trails could be constructed throughout the RNAs to reduce damage to research sites and increase public enjoyment.

All Research Natural Areas would also be designated as Areas of Critical Environmental Concern.

Forest Management

Applications for local use of forest products would be considered on a case by case basis. Revegetation may be required if appropriate.

Subsistence

Subsistence would be protected through NEPA assessments and enforcement of Surface Management Regulations. Emphasis would be on the protection of existing subsistence resources, primarily furbearers, caribou, and other game animals.

Sensitive and Rare Plants

Inventories of all likely sensitive and rare plant habitats and studies of the plants found would be undertaken to facilitate determination of their status under the Endangered Species Act. Information gained would help prevent alteration or destruction of habitats which could lead to listing of the plants as threatened or endangered under the ESA.

Sites would be protected by modifying proposed actions which threaten habitats or by denying those actions which cannot be modified. When

actions cannot be modified or denied, attempts will be made to salvage plant materials, especially ripe seed. In addition to salvage actions, attempts will be made to establish colonies in likely habitats where practicable.

DESCRIPTION OF ALTERNATIVE C

Summary

A mix of resource protection and resource development would be provided, based on identified needs and resource capabilities. Some resources, particularly wildlife habitat, would receive more intensive management.

This alternative allows more mineral development than Alternative A or B, but less than Alternative D.

Recreation Management

Within the wild river corridor and other designated areas shown on Map 2-6, the objective of management would be to maintain primitive ROS classifications. The area to be managed for primitive values includes the Birch Creek viewshed, the proposed Research Natural Areas, certain Dall sheep and caribou use areas, and all federal lands within one-half mile of the Pinnell Mountain Trail. In other areas, management would allow motorized ROS classifications to develop. Table 1-6 shows approximate acreage in each class.

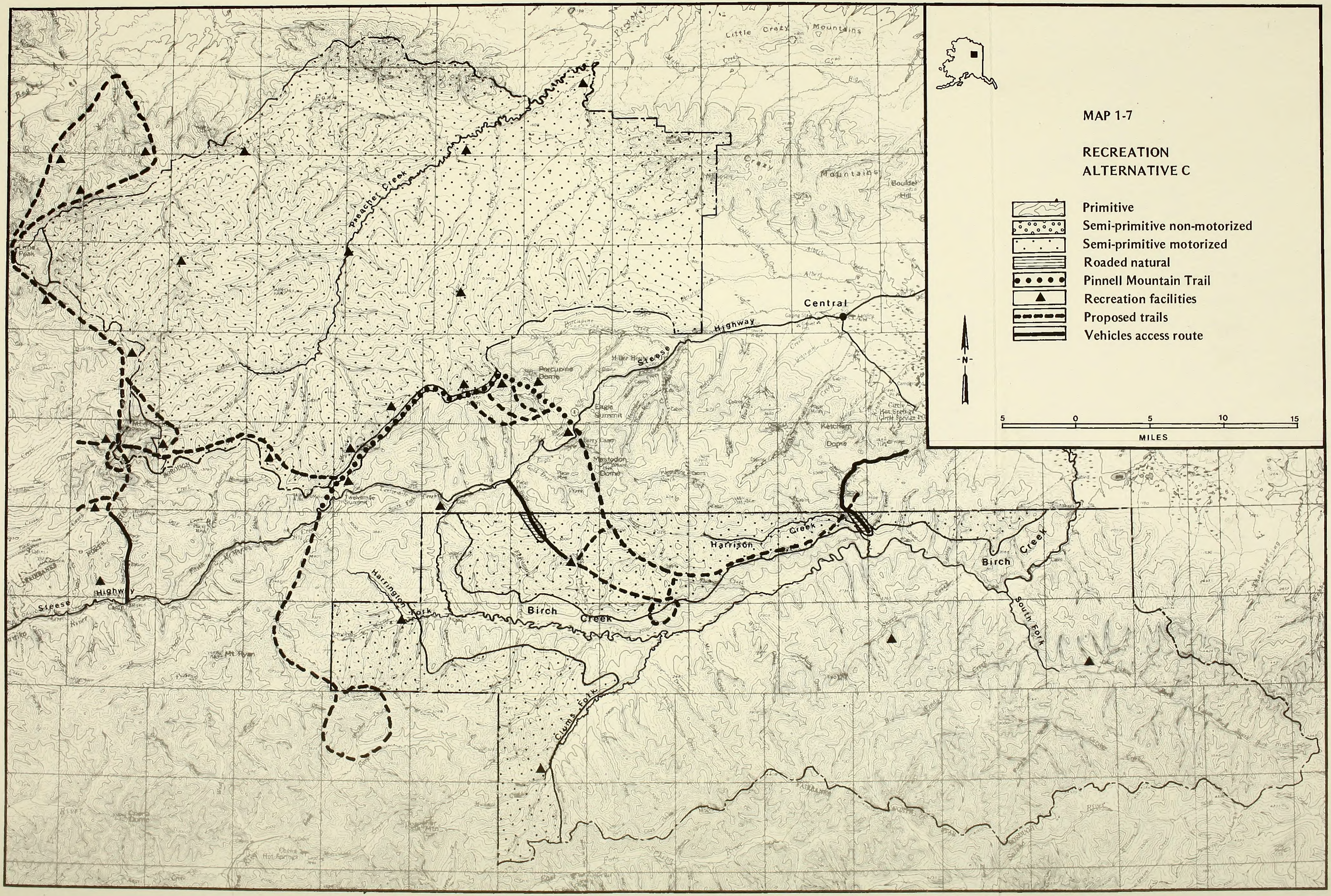
Existing trails and facilities would be maintained. New campgrounds and trails would be constructed. Cabins suitable for summer or winter use by small parties would be constructed to provide shelter for hunters, hikers, or other recreationists. These are shown on Table 1-7. Facility locations are shown on Map 1-7.

A small area suitable for gold panning would be acquired or retained and managed for recreational mining.

Access would be improved by encouraging construction of improved roads in some locations. Construction may be accomplished by working with the State of Alaska or with private development interests, such as miners.

Land exchanges would be proposed to acquire State lands with high recreational value. These exchanges are shown on Map 1-6. Non-federal lands, or interests in lands, within the river corridor would be acquired whenever possible. Rights-of-way for recreational access across State lands would be acquired where necessary.

Recreational use would be managed through facility location and design and in an increased level of visitor services, including signs, brochures, and field contacts.


MAP 1-7
RECREATION
ALTERNATIVE C
Primitive
Semi-primitive non-motorized
Semi-primitive motorized
Roaded natural
Pinnell Mountain Trail
Recreation facilities
Proposed trails
Vehicles access route
N
5 0 5 10 15
MILES
Little Crazy Mountains
Crazy Mountains
Boulder Hill
Central
Steese Highway
Porcupine Dome
Eagle Summit
Mastodon Dome
Ketchum Dome
Circle Hot Springs
Preacher Creek
Harrison Creek
Birch Creek
South Fork
Harrington Fork
Clums Fork
Twelvemile Summit
Steese Highway
Mt. Ryan

RECREATION CLASSIFICATION IN ALTERNATIVE C

Table 1-6

ROS Class	Approximate Acreage	% of Total Area
Primitive	513,020	42%
Semi-primitive motorized	706,200	58%
Roaded natural	680	less than 1%

RECREATION FACILITIES IN ALTERNATIVE C

Table 1-7

Facility	Existing	Proposed	Total
Campgrounds	2	3	5
Interpretive Sites	0	5	5
Trailheads	2	5	7
Hiking Trails	27 miles	84 miles	111 miles
Shelters	2	16	18

Wildlife Habitat Management

Wildlife habitats would be managed to increase wildlife population and habitat to facilitate achieving ADF&G objectives. Emphasis would be placed on maintenance of populations and habitats in areas where conflicts with mineral development occur. Priority species for intensive management are caribou, Dall sheep, moose, peregrine falcon, other raptors, grizzly and black bear, furbearers and small game. Habitat improvement actions would occur through implementation of prescription fires, mechanical treatments, and Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Detailed high level inventory and monitoring of the priority species would facilitate intensive management actions. An SMA would be established that encompasses present and historical caribou, Dall sheep, moose, grizzly and black bear, raptor and fish crucial habitats (Map 1-8). Areas closed to mineral entry for habitat protection purposes include caribou calving and movement routes, Dall sheep and present historical, crucial habitats, and raptor nesting

habitat along Birch Creek NWR in the South Steese. However, portions of the areas closed to mineral entry contain existing claims that may be maintained and developed.

Fisheries Habitat Management

The same fish habitat objectives stated in Alternative B are operable in this alternative. Also, because of probable increased levels of mineral development activities in this alternative, more intensive habitat management may be applied. The South Fork of Birch Creek would be a Special Management Area for grayling. This area would be a priority area for surface protection and special stipulations may be applied to mining plans of operation in this area.

Minerals Management

For purposes of minerals management, a Limited Mineral Development Zone would be maintained. The LMDZ would correspond exactly to the area to be managed for primitive recreation. (See Map 1-7.)

Outside of the wild river corridor, holders of unperfected mining claims would be allowed to re-record these claims. In addition, all lands outside of the LMDZ would be open to location of new mining claims.

Surface management regulations would be specifically applied and enforced for all activities affecting crucial value. The prevention of degradation would be stressed rather than the mitigation of resource damage.

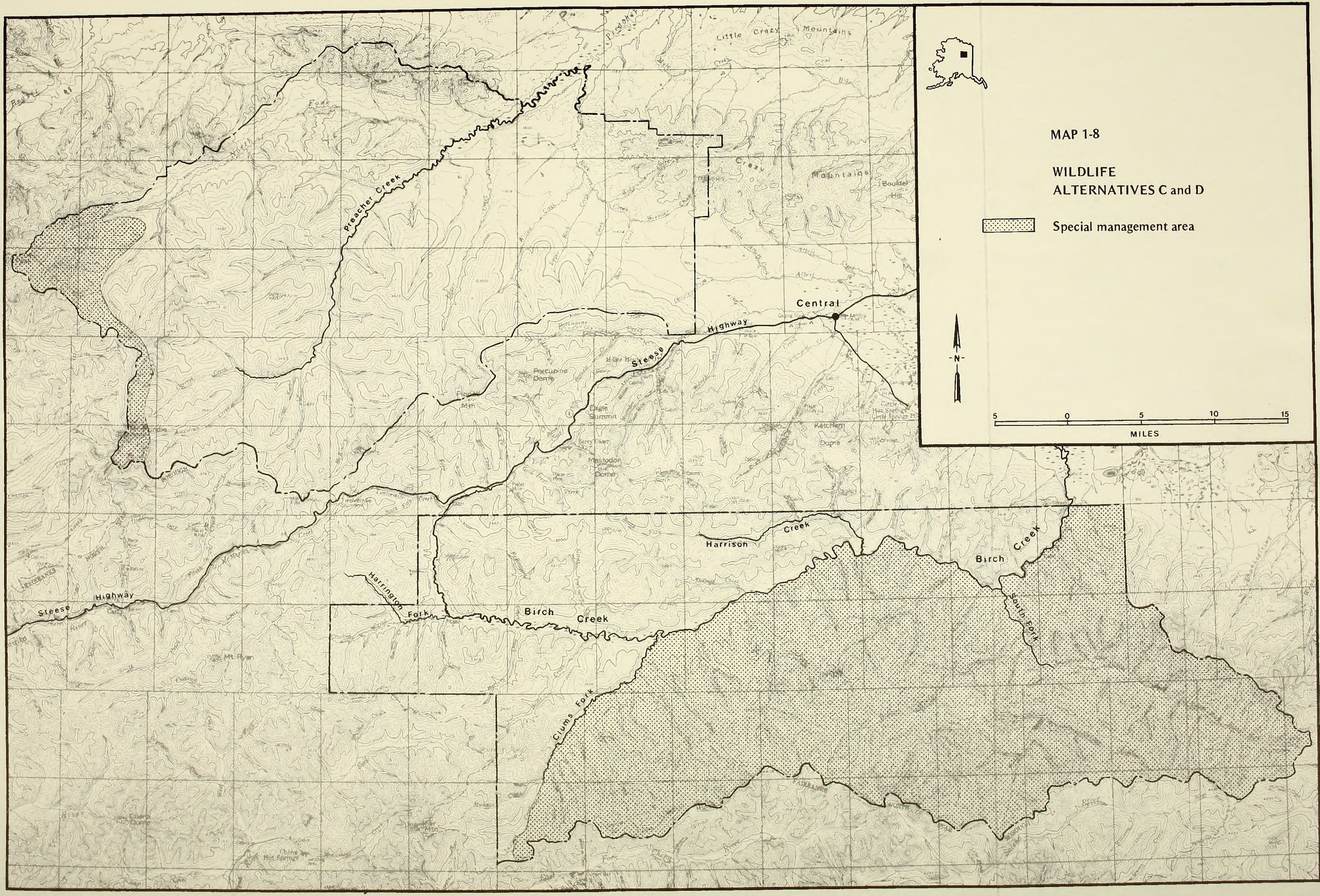
Within the river corridor, the Bureau would initiate examinations on claims to determine compliance with all mining laws. In other areas, patent examinations would be initiated at the request of the claimant and validity examinations would be done in the case of flagrant unauthorized use or if the Authorized Officer determines that the land is needed for a federal program.

In accordance with the appropriate leasing regulations (43 CFR 3100, 43 CFR 3200 and 43 CFR 3400), the entire SNCA, with the exception of the wild river corridor, would be opened to geothermal and oil and gas leasing. However, no surface occupancy would be permitted within the LMDZ.

All lands outside the LMDZ would be opened to coal leasing.

All lands outside the LMDZ would be opened to leasing of non-energy minerals in accordance with the appropriate leasing regulations (43 CFR 3500).

Disposals of sand, gravel, stone, and other saleable minerals under 43 CFR 3600 may be made only if compatible with other provisions of this land use plan (see Table 1-8).


Little Crazy Mountains
Preacher Creek
Crazy Mountains
Boulder Hill
Central
Steese Highway
Porcupine Dome
Eagle Summit
Ketchem Dome
Mastodon Dome
Harrison Creek
Birch Creek
South Fork
Harrington Fork
Clums Fork
Steese Highway
MAP 1-8
WILDLIFE
ALTERNATIVES C and D
Special management area
N
5 0 5 10 15
MILES

Mineral exploration may continue on all lands according to current rules and regulations which are described in Alternative A.

MINERAL ACTIONS IN ALTERNATIVE C

Table 1-8

Action	Approximate Acres Opened	% of Total Area
Location of new claims	706,980	58%
Geothermal and oil and gas leasing	1,147,000	94%
Coal leasing	706,980	58%
Leasing of non-energy minerals	706,980	58%

*Surface occupancy would not be allowed on a portion (513,020 acres) of this area.

Water Resource Management

Priority for enforcement of Surface Management Regulations would be given to the wild river corridor and the South Fork of Birch Creek watershed, with management aimed at maintaining water quality levels no lower than the current ADEC classification. This would require maintenance or improvement of existing water quality. In other areas, enforcement of regulations and compliance examinations would be conducted as time and funding allows. In the case of limited enforcement capability, priorities would be established according to the resources at risk.

Fire Management

Management would be the same as described in Alternative B, except that the designation of areas to be managed under each option would be slightly different (see Map 1-9). This change was made to provide a higher degree of protection to areas where development is likely.

Off-Road Vehicles and Aircraft

ORV use, which would impact areas designated for primitive recreation management, would be limited. Motorized access would generally be unrestricted in other areas.

Within areas designated for primitive recreation management (see Map 1-7), use of vehicles of less than 1,500 pounds GVW would be unrestricted. Operation of vehicles of greater than 1,500 pounds GVW off a valid right-of-way would require authorization by the Authorized Officer.

In all other areas ORV use would be unrestricted except on hiking trails. A monitoring program would be established, and ORV use may be further limited if significant problems occur.

Aircraft use would generally be unrestricted.

Rights-of-Way and Other Realty Actions

Rights-of-Way which would allow increased public access would be encouraged in all areas except those designated for primitive recreation management (see Map 1-7). Rights-of-way may be allowed to cross primitive areas if there is no reasonable alternative. Holders of rights-of-way would be required to allow public access for recreation unless there was a compelling reason to deny such access.

All other actions would generally be allowable if they were compatible with land uses designated in this plan.

The land exchanges proposed in Alternative B (see Map 1-6) would also be proposed under this alternative.

Policy on transportation corridors and crossing points in the wild river corridor would be the same as described in Alternative B.

Visual Resource Management

Present scenic quality would generally be maintained in areas designated for primitive recreation management. In other areas, changes may be permitted, if necessary, to meet the goals of this plan.

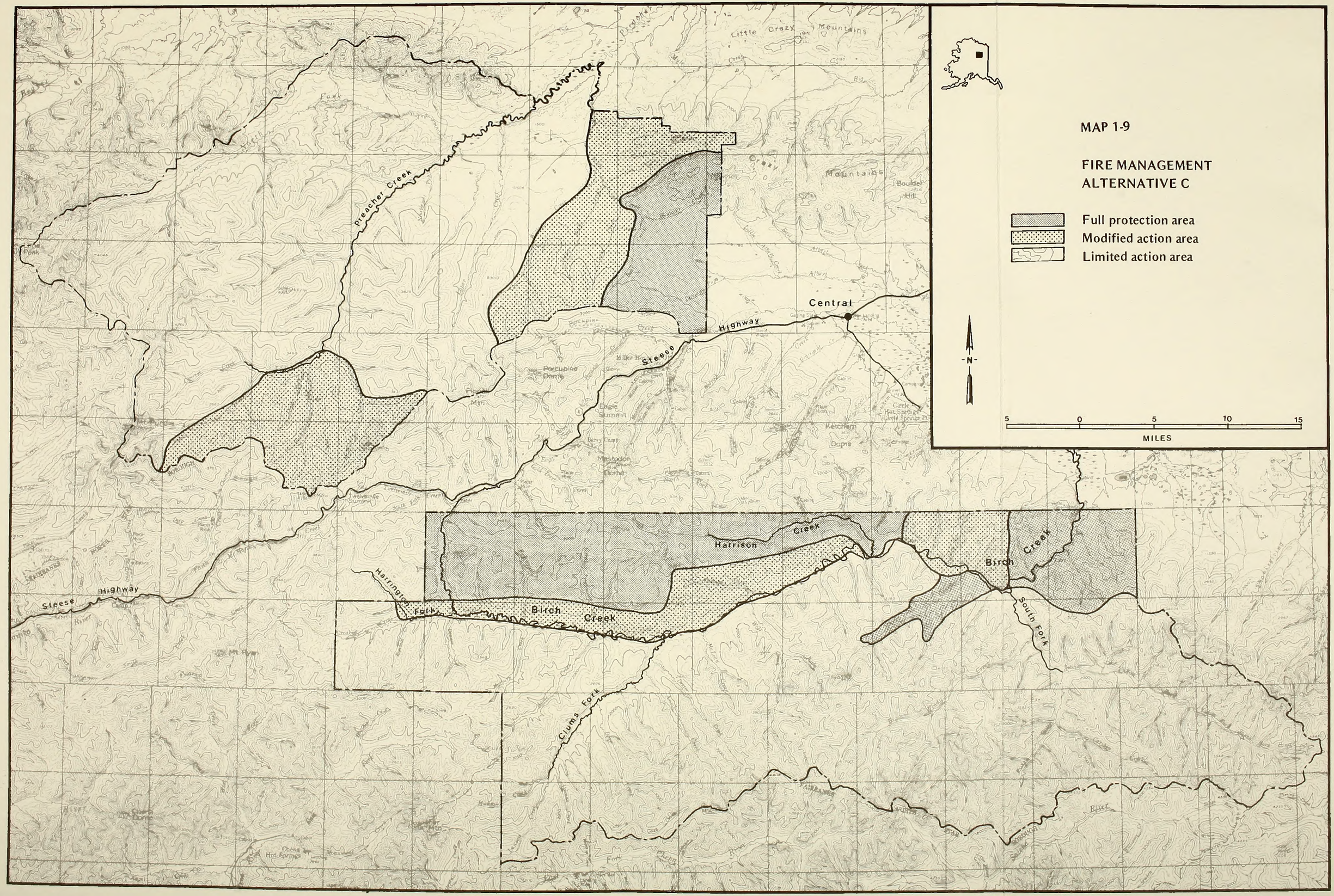
Scenic quality would be protected (through NEPA assessments and surface management regulations) by identifying and mitigating adverse impacts of proposed actions.

Disturbed areas within the wild river viewshed would be rehabilitated if feasible.

Fire or vegetation manipulation for wildlife habitat improvement would not be considered adverse impacts.

Cultural and Paleontological Resource Management

BLM would identify any sites of potential National Register significance and allow for Advisory Council on Historic Preservation comment prior to any action which may impact such a site. No such sites have as yet been identified. Surface management protection activities would include identification of paleontological resources.


MAP 1-9
FIRE MANAGEMENT
ALTERNATIVE C
Full protection area
Modified action area
Limited action area
N
5 0 5 10 15
MILES
Little Crazy Mountains
Crazy Mountains
Preacher Creek
Central
Steese Highway
Porcupine Dome
Eagle Summit
Mastodon Dome
Ketchem Dome
Harrison Creek
Birch Creek
Hatfinger Fork
South Fork
Clums Fork
Chena Hot Springs

Research Natural Areas and Areas of Critical Environmental Concern

Research Natural Areas would be designated at Mount Prindle and Big Windy Hot Springs as described in Alternative B. No Areas of Critical Environmental Concern would be designated.

Forest Management

All areas except the Research Natural Areas would be open to timber harvest. Harvest in the wild river corridor must be consistent with the wild river management plan. Harvest within the viewshed of Birch Creek would be designed to minimize visual impacts. Measures would be taken to promote revegetation after any surface disturbance.

Subsistence

Subsistence would be protected through NEPA assessments and enforcement of Surface Management Regulations.

Wildlife management would be intensified, which would benefit subsistence species as well as other species. (See wildlife section for details.)

Sensitive and Rare Plants

Inventories of all likely sensitive and rare plant habitats and studies of the plants found would be undertaken to facilitate determination of their status under the Endangered Species Act. This would provide information for management decisions that would avoid alteration or destruction of habitats which could lead to listing of the plants as threatened or endangered under the ESA.

Sites would be protected by modifying proposed actions which threaten habitats or by denying those actions which cannot be modified. When actions cannot be modified or denied, attempts will be made to salvage plant materials, especially ripe seed. In addition to salvage actions, attempts would be made to establish colonies in likely habitats where practicable.

DESCRIPTION OF ALTERNATIVE D

Summary

Economic development and human use of resources would be encouraged. This would require intensive management of most resources and activities.

Recreation Management

Primitive ROS classifications would be maintained within the river corridor, the proposed Research Natural Areas, and all federal lands within one-half mile of the Pinnell Mountain Trail. Management would be aimed at permitting motorized ROS classification in other areas, as shown on Table 1-9.

Existing trails and facilities would be maintained. New campgrounds and trails would be constructed. Cabins suitable for summer or winter use by small parties would be constructed to provide shelter for hunters, hikers, or other recreationists (see Table 1-10). Facility locations are shown on Map 1-10.

A small area suitable for gold panning would be acquired or retained and managed for recreational mining.

Access would be improved by encouraging construction of improved roads in some locations. Construction may be accomplished by working with the State of Alaska or with private development interests, such as miners.

Land exchanges would be proposed to acquire adjacent State lands with recreational value. These exchanges are shown on Map 1-6. Non-federal lands or interests in lands within the river corridor would be acquired whenever possible. Rights-of-way for recreational access across State lands would be acquired where necessary.

Recreational use would be managed through facility location and design and an increased level of visitor services, including signs, brochures, and field contacts.

RECREATION CLASSIFICATIONS IN ALTERNATIVE D

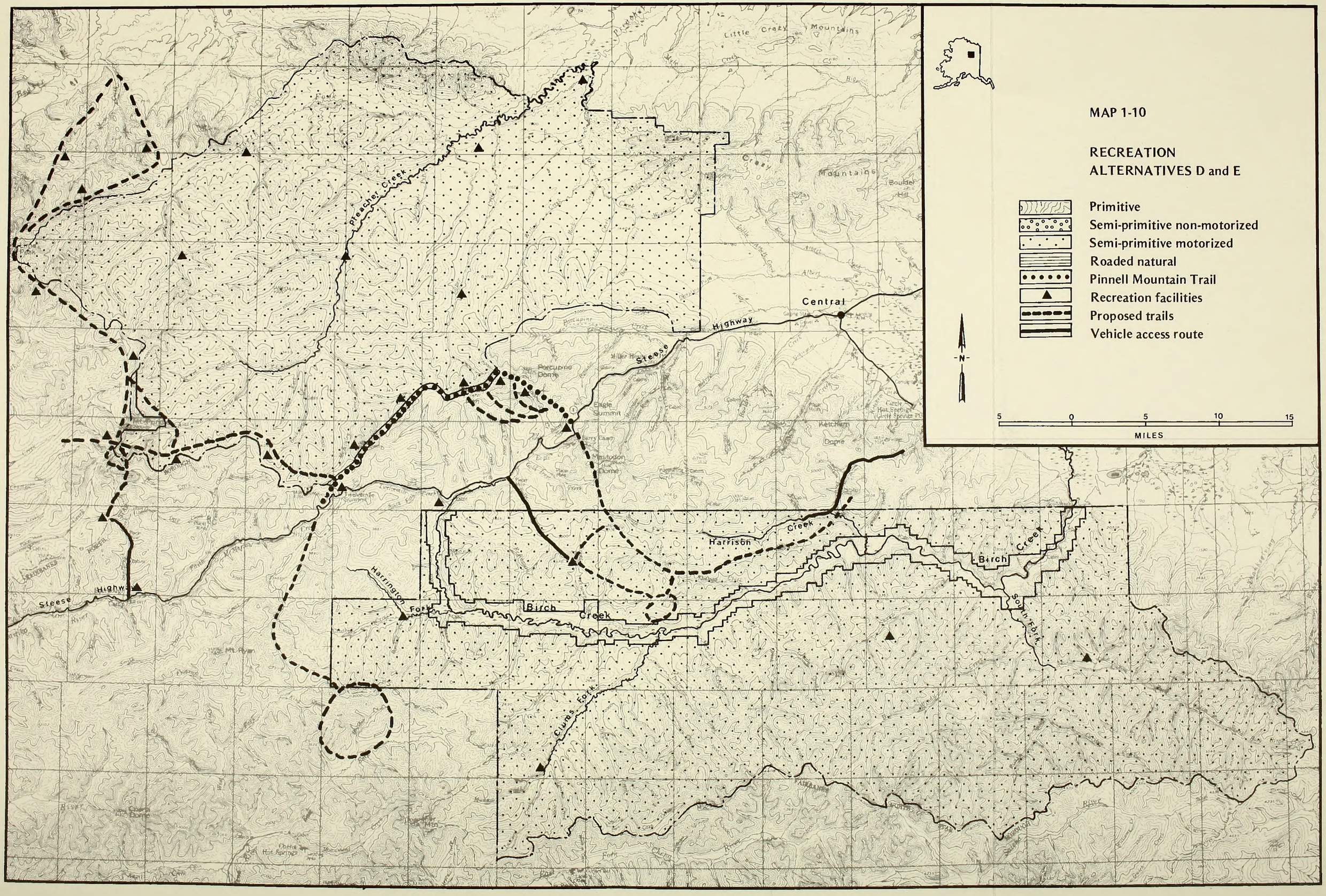
Table 1-9

ROS Class	Approximate Acreage	% of Total area
Primitive	72,660	6%
Semi-Primitive motorized	1,146,660	94%
Roaded natural	680	less than 1%

RECREATION FACILITIES IN ALTERNATIVE D

Table 1-10

Facility	Existing	Proposed	Totals
Campground	2	3	5
Picnic Sites	0	2	2
Interpretive Sites	0	5	5
Trailheads	2	6	8
Hiking Trails	27 miles	84 miles	111 miles
Shelters	2	16	18


MAP 1-10
RECREATION
ALTERNATIVES D and E
Primitive
Semi-primitive non-motorized
Semi-primitive motorized
Roaded natural
Pinnell Mountain Trail
Recreation facilities
Proposed trails
Vehicle access route
N
5 0 5 10 15
MILES
Little Crazy Mountains
Crazy Mountains
Boulder Hill
Preacher Creek
Central
Steese Highway
Porcupine Dome
Eagle Summit
Mastodon Dome
Ketchem Dome
Circle Hot Springs
Twelvemile Summit
Harrison Creek
Birch Creek
South Fork
Harrington Fork
Steese Highway
Curtis Fork
Chena Dome
Chena Hot Springs

Wildlife Habitat Management

The wildlife habitat management program would emphasize maintenance of wildlife populations and habitat at or near present levels. Priority species for intensive management would be caribou, Dall sheep, moose, peregrine falcon and other raptors. Limited management for grizzly and black bears, furbearers and small game would be implemented. Habitat improvement actions would include use of prescription fire, mechanical treatment and implementation of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Detailed high-level inventory and monitoring of priority species would facilitate intensive management actions. An SMA would be designated that encompasses caribou, Dall sheep, moose, raptor and fish crucial habitat (Map 1-8). No areas would be closed to mineral entry for specific habitat protection purposes. However, raptor-nesting habitat along Birch Creek would be closed to mineral entry as a result of the Birch Creek NWR designation.

Fisheries Habitat Management

The same opportunities for fish habitat management would be possible in Alternative D as in Alternative C. A greater involvement with surface protection processes would be necessary if there were more mineral development. The South Fork of Birch Creek and its tributaries would be a special management area for fish. This would be a priority area for enforcement of Surface Management Regulations, and special stipulations may be applied to mining plans of operation in this area.

Minerals Management

Most of the SNCA would be open to location and entry under the 1872 Mining Law as amended (see Table 1-11). The Limited Mineral Development Zone would be considerably smaller than in Alternative C. The LMDZ corresponds exactly to the area to be managed for primitive recreation (see Map 1-10).

MINERAL ACTIONS IN ALTERNATIVE D

Table 1-11

Action	Approximate Acres Opened	% of Total Area
Location of new claims	1,147,340	94%
Geothermal and oil and gas leasing	1,147,000*	94%
Coal leasing	1,147,340	94%
Leasing of non-energy minerals	1,147,340	94%

*Surface occupancy would not be allowed on a portion (72,660 acres) of this area.

Water Resource Management

Priority for water resource management would be aimed at maintaining water quality levels no lower than the current ADEC classification within the wild river corridor. All other areas would receive enforcement and compliance examinations as time and funding allows. This would allow some degradation of water quality in certain areas in order to accommodate mining or other development. The enforcement of surface management and mineral leasing regulations would be designed to achieve this objective.

A limited network of water quality monitoring stations would be established around areas of proposed developments.

In-stream flow studies would be conducted to quantify the water right needed for recreational purposes. BLM would respond to requests for water supply sources and water resources information for proposed developments.

Fire Management

Fire management would be carried out according to the options shown on Map 1-11. These designations provide a higher degree of fire protection.

Off-Road Vehicles and Aircraft

Motorized access would be encouraged in most areas.

In areas designated for primitive recreation management, use of vehicles of less than 1,500 pounds GVW would be unrestricted. Operations of vehicles of greater than 1,500 pounds GVW off a valid right-of-way would require authorization by the Authorized Officer.

In all other areas ORV use would be unrestricted except on hiking trails.

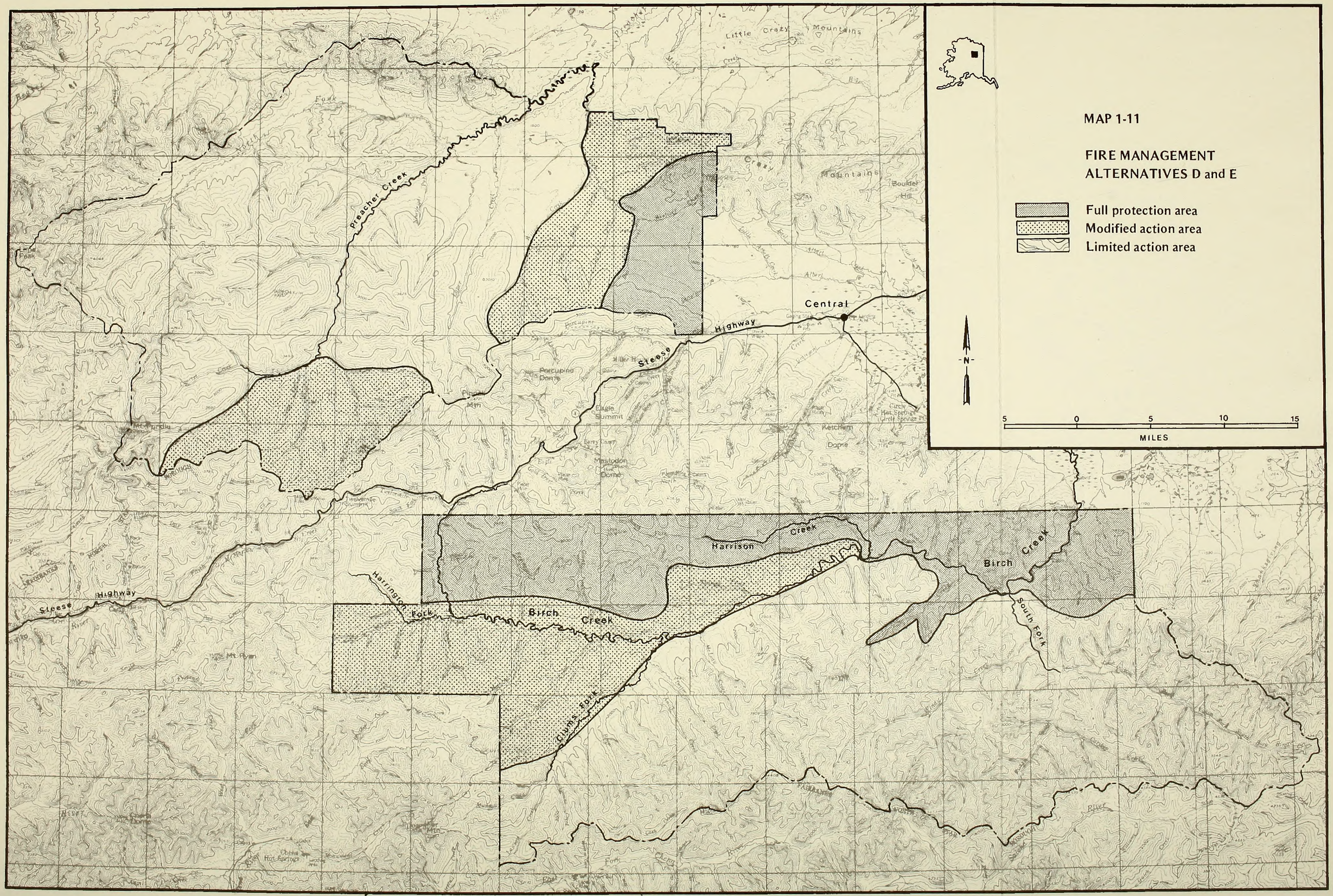
Aircraft use would be generally unrestricted.

Rights-of-Way and Other Realty Actions

Rights-of-Way which would allow increased public access would be encouraged in all areas except those designated for primitive recreation management. (See Map 1-10.) Rights-of-way may be allowed to cross primitive areas if there is no reasonable alternative. Holders of rights-of-way would be required to allow public access for recreation unless there was a compelling reason to deny such access.

All other actions would generally be allowable if they were compatible with land uses designated in this plan.

Proposed land exchanges remain the same as in Alternative B (see Map 1-6).


Little Crazy Mountains
Preacher Creek
Crazy Mountains
Boulder Hill
Central
Steese Highway
Porcupine Dome
Eagle Summit
Ketchem Dome
Mastodon Dome
Harrison Creek
Birch Creek
Harrington Fork
Birch Creek
South Fork
Clums Fork
Steese Highway
Chena Hot Springs
MAP 1-11
FIRE MANAGEMENT
ALTERNATIVES D and E
Full protection area
Modified action area
Limited action area
N
5 0 5 10 15
MILES

Policy on transportation corridors and crossing points in the wild river corridor would be the same as described in Alternative B.

Visual Resource Management

Present scenic quality would generally be maintained in areas designated for primitive recreation management. In other areas changes may be permitted, if necessary, to meet the goals of this plan.

Scenic quality would be protected, through NEPA assessments and surface management regulations, by identifying and mitigating adverse impacts of proposed actions.

Disturbed areas within the wild river viewshed would be rehabilitated if feasible.

Fire or vegetation manipulation for wildlife habitat improvement would not be considered adverse impacts.

Cultural and Paleontological Resource Management

BLM would identify any sites of potential National Register significance and allow for Advisory Council on Historic Preservation comment prior to any action which may impact such a site. No such sites have as yet been identified. Surface management protection activities would include identification of paleontological resources.

Research Natural Areas and Areas of Critical Environmental Concern

Two Research Natural Areas would be designated. One RNA, on Mount Prindle, includes 2,800 acres in the SNCA, and the other encompasses the 160-acre Big Windy Hot Springs withdrawal. Locations and boundaries are shown in Appendix B. No surface-disturbing activities would be allowed except permitted research projects. The areas would be closed to off-road vehicles and camping to avoid disturbing research projects. Natural processes, including wildfire, would be allowed to continue with as little interference as possible. Primitive campsites would be established outside RNA boundaries and access improved in the form of developed trails, helispots, and airstrips. Hiking, hunting, and nature appreciation would be allowed. Developed trails could be established through the RNAs to reduce damage to research sites and increase public enjoyment.

No Areas of Critical Environmental Concern would be designated.

Forest Management

All areas except the Research Natural Areas would be open to timber harvest. Harvest in the wild river corridor must be consistent with the wild river management plan. Harvest within the viewshed of Birch Creek

would be designed to minimize visual impacts. Measures would be taken to promote revegetation after any surface disturbance.

Subsistence

Subsistence would be protected through environmental assessments and enforcement of Surface Management Regulations.

Human use of subsistence species would be facilitated by improved access.

Sensitive and Rare Plants

Inventories of all likely sensitive and rare plant habitats and studies of the plants found would be undertaken to facilitate determination of their status under the Endangered Species Act. Information gained would help prevent alteration or destruction of habitats which could lead to listing of the plants as threatened or endangered under the ESA.

Sites would be protected by modifying proposed actions which threaten habitats or by denying those actions which cannot be modified. When actions cannot be modified or denied, attempts will be made to salvage plant materials, especially ripe seed. In addition to salvage actions, attempts would be made to establish colonies in likely habitats where practicable.

DESCRIPTION OF ALTERNATIVE E

Summary

This was the Preferred Alternative presented in the draft EIS. It was developed following a public review and estimation of effects of Alternatives A, B, C, and D. This alternative is largely a modification of Alternative D, with some strengthening of management actions designed to insure resource protection.

Recreation Management

Primitive ROS classifications would be maintained within the Wild River Corridor, all Research Natural Areas, and all federal lands in the SNCA which lie within one-half mile on either side of the Pinnell Mountain Trail. Management would be aimed at permitting motorized ROS classifications in other areas. The classifications are the same as those described in Alternative D. (See Map 1-10.)

A small area suitable for gold panning would be acquired or retained and managed for recreational mining.

Access would be improved by encouraging construction of improved roads in some locations. Construction may be accomplished by working with the State of Alaska or with private development interests, such as miners.

Land exchanges would be proposed to acquire adjacent State lands with high recreational value. These exchanges are shown on Map 1-6. Non-federal lands or interests in lands within the river corridor would be acquired whenever possible.

Recreational use would be managed through facility location and design and an increased level of visitor services, including signs, brochures, and field contacts. Existing trails and facilities would be maintained. New campgrounds and trails would be constructed. Cabins suitable for summer or winter use by small parties would be constructed to provide shelter for hunters, hikers, or other recreationists. Facility locations are shown on Map 1-10. Where proposed trails cross State lands, rights-of-way would be acquired. Facilities would be constructed as funds become available. Priorities are as follow.

FIRST PRIORITIES

Upper Sourdough Creek:	Trailhead Site
Twelvemile Summit:	Interpretive Site
Twelvemile Creek:	Campground and Interpretive Site
Eagle Summit:	Picnic and Interpretive Site
Jump-off Creek:	Campground
Ptarmigan Creek:	Trailhead
Shelters at:	Pinnell Mountain Trail (3)
	Bachelor Creek (1)
	Mount Prindle (1)
Trails:	Pinnell Mountain East Additions (Eastern Loops) (6 miles)
	Twelvemile Summit to Mount Prindle (22 miles)

SECOND PRIORITIES

Sourdough Creek-Steese Highway:	Trailhead Site
Upper Sourdough Creek:	Picnic Site
Harrison Creek:	Trailhead Site
Shelters:	Clums Fork (1)
	Harrington Fork (1)
	Preacher Creek (2)
Trails:	Pinnell Mountain East Addition (11 miles)
	Mount Prindle, east side (8 miles)

THIRD PRIORITIES

Sourdough Creek-Steese Highway:	Interpretive Site
Upper Sourdough Creek:	Campground and Interpretive Site
Ketchem Creek:	Trailhead Site
Great Unknown Creek:	Trailhead Site

Shelters:	South Fork (1)
	Sheep Creek (1)
	Great Unknown Creek (1)
	North Fork (2)
	Crazy Mountains (1)
	Loper Creek (1)
Trails:	Great Unknown Loop (25 miles)
	Harrison Creek (12 miles)

The acreages to be maintained in each ROS classification and the number and type of facilities are the same as in Alternative D. (See Tables 1-9 and 1-10.)

Wildlife Habitat Management

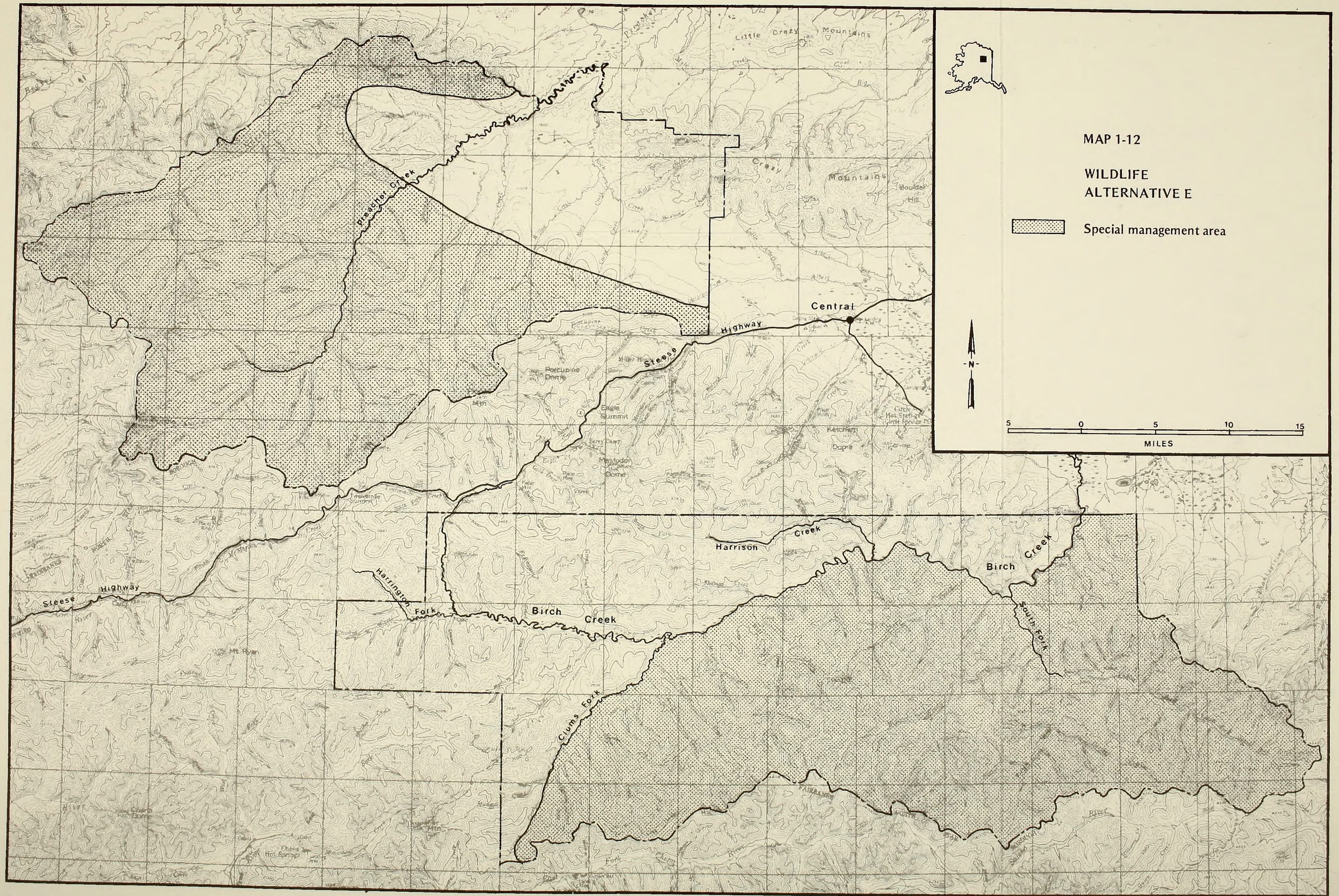
The wildlife habitat management program would emphasize maintenance of wildlife populations and habitat at or near present levels. Priority species for intensive management are caribou, Dall sheep, moose, peregrine falcon and other raptors. Limited management for grizzly and black bears, furbearers and small game would be implemented. Habitat improvement actions would include use of prescription fire, mechanical treatment, and implementation of the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Unit. Detailed high-level inventory and monitoring of priority species would facilitate intensive management actions. An SMA would be designated that encompasses historical and present caribou, Dall sheep, moose, raptor and fish crucial habitat (Map 1-12). No areas are closed to mineral entry for specific habitat protection purposes. However, raptor nesting habitat along Birch Creek is closed to mineral entry as a result of the Birch Creek NWR designation.

Fisheries Habitat Management

Maintenance and enhancement of crucial arctic grayling habitat would be the prime emphasis of this alternative. Crucial grayling habitat consists of overwintering areas, spawning areas, and rearing areas. The maintenance of good quality habitat in the few remaining, relatively undisturbed, Birch Creek Tributaries would be an objective. An inventory program would identify crucial use areas and areas of potential conflicts. Fisheries expertise would be involved in implementation of Surface Management Regulations (43 CFR 3809), especially where conflicts may occur in crucial use areas. The South Fork of Birch Creek would have priority in enforcement of Surface Management Regulations. Special stipulations may be applied to mining plans of operation in this area and other areas considered crucial to the grayling fishery.

Minerals Management

The Limited Mineral Development Zone would consist of Birch Creek NWR corridor, the two Research Natural Areas, and all federal lands in the SNCA which lie within one-half mile of the Pinnell Mountain Trail. This corresponds exactly to the area where a primitive ROS classification is to be maintained. (See Map 1-10.)



MAP 1-12

WILDLIFE
ALTERNATIVE E

Special management area

Outside the wild river corridor, holders of unperfected mining claims would be allowed to re-record those claims. In addition, all lands outside the LMDZ would be open to new entry.

Implementation of Surface Management Regulations would be improved. More field inspections would be made.

Within the river corridor, the Bureau would initiate examinations on claims to determine compliance with all mining laws. In other areas, patent examinations would be initiated at the request of the claimant and validity examinations would be done in cases of flagrant unauthorized use or if the Authorized Officer determines that the land is needed for a federal program.

In accordance with the appropriate leasing regulations (43 CFR 3100, 43 CFR 3200 and 43 CFR 3400), all lands outside the LMDZ would be opened to coal, geothermal, and oil and gas leasing. Disposals of sand, gravel, rock, and other saleable minerals under 43 CFR 3600 may be made only if compatible with other provisions of this land use plan (see Table 1-12).

Mineral exploration may continue on all lands according to current rules and regulations. Exploration which involves no surface disturbance requires no advance approval. Surface-disturbing activities require the filing of a Notice of Intent (less than five acres) or Plan of Operations (more than five acres), which may be approved by the Authorized Officer on a case by case basis.

MINERAL ACTIONS IN ALTERNATIVE E

Table 1-12

Action	Approximate Acres Opened	% of Total Area
Locations of new claims	1,147,340	94%
Geothermal and oil and gas leasing	1,147,340	94%
Coal leasing	1,147,340	94%
Leasing of non-energy minerals	1,147,340	94%

Water Resource Management

The Bureau would cooperate with the Alaska Department of Environmental Conservation in water quality management. The current practice of collecting data on both water quality and quantity would continue when trips are made to the SNCA.

An in-stream flow study on Birch Creek would be conducted to quantify the reserved water right for the purposes for which the wild river was created. BLM would respond to requests for water supply sources and water projects related to proposed developments.

Fire Management

Fire management would be carried out according to the options shown on Map 1-11. These designations provide a high degree of fire protection.

Prescribed burning would be used to improve wildlife habitat consistent with Habitat Management Plans and to manage fuels. Fuels would be managed in the lower Preacher Creek drainage to reduce the probability of large, severe fire in that area. Other areas where prescribed burning may be used would be identified as more information becomes available.

Prior to any prescribed burn, the area would be thoroughly investigated to identify any inhabitated cabins, historical sites, or other critical protection sites, and appropriate measures would be taken to protect these sites.

Fuels management and other strategies would be identified, which would reduce the wildfire hazard to structures requiring fire protection.

Off-Road Vehicles and Aircraft

In areas where a primitive ROS classification is to be maintained, use of vehicles of less than 1,500 pounds GVW would be unrestricted. Operation of vehicles of greater than 1,500 pounds GVW off a valid right-of-way would require authorization by the Authorized Officer. Crossing the wild river corridor would be allowed if there were no economically feasible and prudent alternative. The number of crossing points would be kept to a minimum. In all other areas, ORV use would be unrestricted except on designated hiking trails, which would be closed to ORV use.

Aircraft use would be generally unrestricted.

Rights-of-Way and Other Realty Actions

Rights-of-way which would allow increased public access would be allowed, but consolidated to the extent possible, in all areas except those where primitive ROS classifications were to be maintained. Rights-of-way may be allowed to cross primitive areas if there is no reasonable alternative and the proposals are in compliance with the requirements of the approved river management plan for Birch Creek NWR. Holders of rights-of-way would be required to allow public access for recreation unless there was a compelling reason to deny such access.

As transportation needs become more clearly identified, the Authorized Officer may exercise his authority to designate transportation corridors

to eliminate proliferation of rights-of-way. Also, several users may be required to use the same road or trail and to jointly maintain it.

Rights-of-way across the wild river corridor would be allowed only if there were no economically feasible and prudent alternative and the number of crossing points would be kept to a minimum. Crossing points would be selected in consultation with the users and the Alaska Department of Transportation and Public Facilities. Locations would be based on environmental and engineering considerations, and economic feasibility.

Land exchanges would be proposed to acquire the approximately 14,000 acres of State lands within the boundaries of the SNCA. Exchanges would also be proposed to acquire State lands outside of the present boundaries which have high recreational value. These areas are identified on Map 1-6.

The Bureau may apply for rights-of-way across State lands to provide access to the SNCA.

All other actions would generally be permitted if they were compatible with land uses designated in this plan.

Visual Resource Management

Present scenic quality would generally be maintained in areas designated for primitive recreation management. Changes may be permitted in other areas as necessary to meet the goals of this plan.

Scenic quality would be protected by identifying and mitigating adverse impacts of proposed actions through NEPA assessments and the Surface Management Regulations.

Disturbed areas within the wild river viewshed would be rehabilitated; all disturbed soils would be stabilized and revegetated.

Fire and vegetation manipulation for wildlife habitat improvement are not considered adverse impacts.

Cultural and Paleontological Resource Management

BLM would identify any sites of potential National Register significance and allow for the Advisory Council on Historic Preservation comment prior to any action which may impact such a site. No such sites have as yet been identified. Surface management protection activities would include identification of paleontological resources.

Research Natural Areas and Areas of Critical Environmental Concern

Two Research Natural Areas will be designated. One RNA, on Mount Prindle, includes 2,800 acres in the SNCA, and the other encompasses the

160-acre Big Windy Hot Springs Withdrawal. A small portion (the 160 acres of hot springs withdrawal) of the Big Windy Hot Springs site will also be designated. Locations and boundaries are shown in Appendix B. No surface-disturbing activities would be allowed, except permitted research projects. The areas would be closed to off-road vehicles and camping to avoid disturbing research projects. Natural processes, including wildfire, would be allowed to continue with as little interference as possible. Primitive campsites could be established outside the RNA boundaries and access improved in the form of developed trails, helispots, and airstrips. Hiking, hunting, and nature appreciation would be allowed. Developed trails could be established through the RNAs to reduce damage to research sites and increase public enjoyment.

No Areas of Critical Environmental Concern would be designated.

Forest Management

All areas except the Research Natural Areas would be open to timber harvest. Harvest in the wild river corridor must be consistent with the river plan. Harvest within the viewshed of Birch Creek would be designed to minimize visual impacts. Measures would be taken to promote revegetation after any surface disturbance.

Subsistence

Subsistence use and subsistence resources would be protected by identifying and mitigating impacts of proposed actions through NEPA assessments and the Surface Management Regulations. Management would be coordinated with adjacent land managers and with the Subsistence Division of ADF&G, as required by Section 810 of Public Law 96-487.

Sensitive and Rare Plants

Sensitive or rare plant habitats would be protected from activities which may alter or destroy them and would be managed in a way that would make listing them as threatened or endangered unnecessary.

Inventories for sensitive and rare plants would be conducted as funds are available or as required for clearances for proposed surface-disturbing activities. Sites would be protected by modifying proposed actions which threaten sensitive or rare plant habitats or by denying those actions which cannot be modified. When actions cannot be modified or denied, plant material salvage will be attempted. Salvage of ripe seed is most desirable.

CHAPTER II: THE AFFECTED ENVIRONMENT

This chapter describes the physical, biological, and social characteristics of the Steese National Conservation Area. It is not intended to be an encyclopedic description. It is intended to explain the alternatives to the Proposed Plan. It also identifies the elements of those alternatives which can be affected by the actions of the RMP/EIS. For those who are unfamiliar with interior Alaska, a general description of the natural and manmade environment can be found in "Alaska Regional Profiles: Yukon Region" (Lidia L. Selkregg, University of Alaska, Arctic Environment Information and Data Center).

The information presented in this section is summarized from the Management Situation Analysis prepared earlier in the planning process and available for review at the Fairbanks District Office, BLM.

Recreation

A Recreation Opportunity Spectrum analysis, a classification process currently being used by the U.S. Forest Service and BLM, has been completed for the SNCA and the resulting ROS classifications have been used to describe the recreational opportunities available in a particular area. Table 2-1 provides a description of the four ROS classifications used while Map 2-1 delineates the classification.

During the ROS analysis the area was also evaluated for wilderness characteristics as defined by the Wilderness Act, P.L. 88-577. The area (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or primitive and unconfined types of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practical its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological or other features of scientific, educational, scenic, or historical value. Nearly all of the area currently classified as primitive under the ROS system contains these wilderness characteristics.

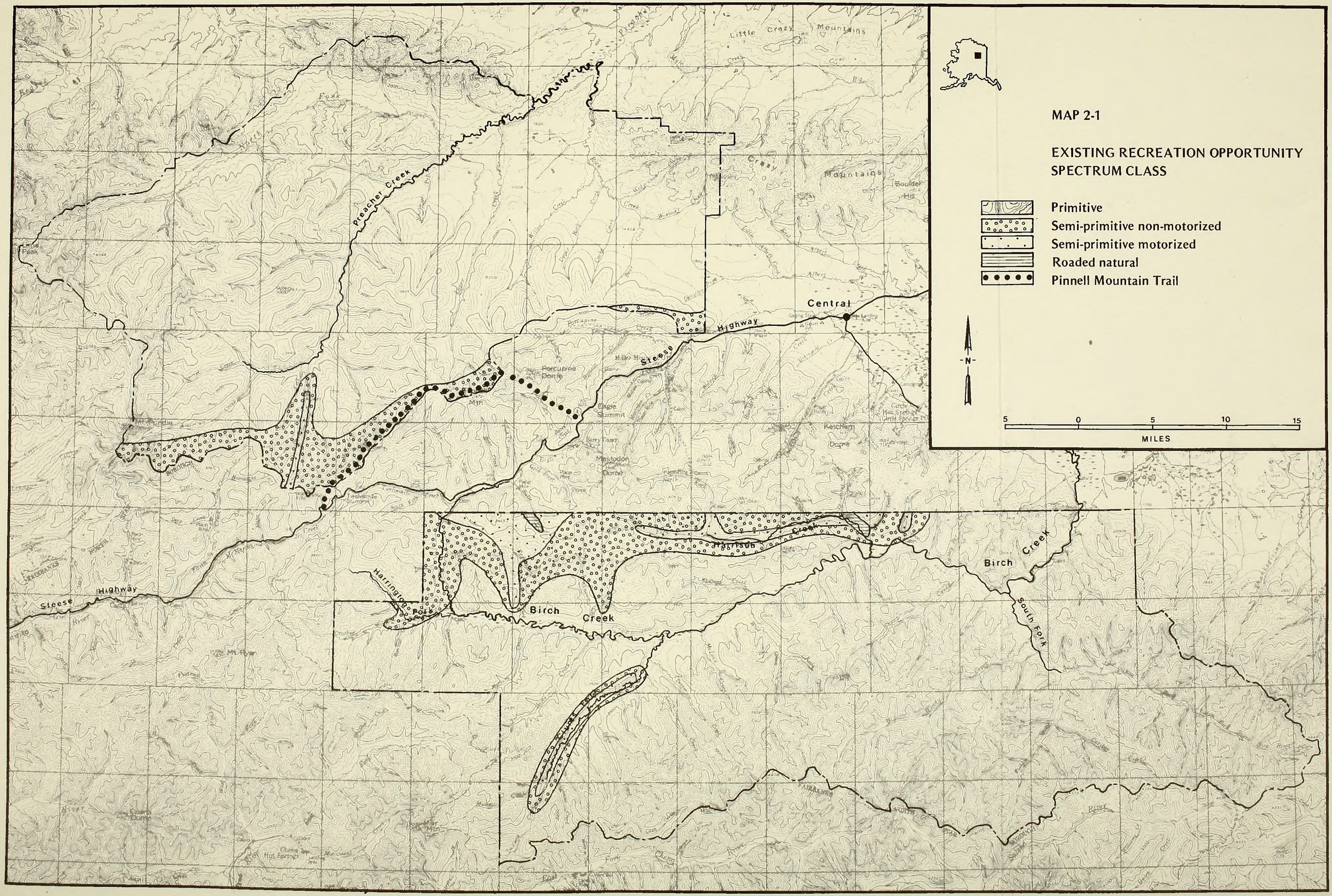
The only existing recreational development in the SNCA is the Pinnell Mountain National Recreation Trail, a 27-mile hiking trail with two shelters. There are no campgrounds, picnic areas, or other facilities within the SNCA. Two nearby campgrounds (Bedrock Creek and Ketchum Creek) contribute to recreational use along the Steese Highway.

Recreation use is generally light due to lack of access and developed facilities. Hiking usually is limited to the Pinnell Mountain Trail. Birch Creek National Wild River is the principal recreation attractor, but the turbid water has reduced its appeal in recent years. Use of off-road vehicles occurs on many existing trails, often in connection

SUMMARY DESCRIPTION OF THE ROS CLASSIFICATION SYSTEM

Table 2-1

Primitive	Semi-Primitive Non-Motorized	Semi-Primitive Motorized	Roaded Natural
Area is characterized by essentially unmodified natural environment of fairly large size. Interaction between users is very low, and evidence of other users is minimal. Evidence of motorized use is extremely rare.	Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low but there is often evidence of other users. There is little evidence of motorized use.	Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. Primitive roads and motorized use are present.	Area is characized by a predominantly natural appearing environment with moderate evidence of the sights and sounds of man. Such evidence usually harmonizes with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Roads and motorized use are present.



MAP 2-1

EXISTING RECREATION OPPORTUNITY SPECTRUM CLASS

- Primitive
- Semi-primitive non-motorized
- Semi-primitive motorized
- Roaded natural
- Pinnell Mountain Trail

with sport hunting, another popular recreation activity. Almost all recreation activity takes place during the summer or fall. There is some recreational use of snowmachines, but the seasonal closure of the Steese Highway makes the area difficult to reach in winter.

Wildlife and Fishery Habitat

The area provides habitat for many species typical to interior Alaska. Caribou, moose, Dall sheep, grizzly bear, black bear, wolf, and wolverine are the big game species present. Furbearers of economic importance in the area include marten, lynx, red fox, beaver, otter, and mink. Small game species include spruce, ruffed, and sharp-tailed grouse; willow and rock ptarmigan; and the snowshoe hare. The peregrine falcon, an endangered species, inhabits the area as well as other raptors, including bald eagles. Waterfowl and many non-game mammals and bird species are found throughout the area. Additional information concerning species descriptions and distributions is available in Alaska's Wildlife and Habitat (ADF&G, 1978) and Alaska Wildlife Management Plans-Interior Alaska (ADF&G, 1976).

The area contains year round habitat of the Fortymile caribou herd (Map 2-2). The herd presently numbers approximately 14,000 animals and the current ADF&G population goal is 50,000. The SNCA has traditionally been traversed by the Fortymile herd as it migrated to and from calving areas in the White Mountains. Calving has also occurred in recent years in the Clums Fork and Big Windy areas of the South Steese. Data obtained in 1984 indicated that calving occurred in the headwaters of Yukon Fork of the South Fork, Puzzle Gulch and Big Windy Creek headwaters within the SNCA, and in the Salcha and Charley Rivers headwaters.

Dall sheep occupy alpine areas in the vicinity of Mount Prindle, Lime Peak, and the South Fork of Birch Creek (Map 2-3). Sheep habitat is limited by the lack of high elevations and the encroachment of surrounding spruce forests in the area. Sheep often travel considerable distances through the forested areas to reach licks or other suitable habitat. Traversing of forested areas and the scarcity of rugged escape terrain in alpine areas make these sheep more vulnerable to predation and disruption of traditional movements and use areas.

Moose populations in the area are low. Moose habitat is dominated by spruce forest with stands of willow along rivers and creeks which provide winter browse. Quantity and quality of moose range has been reduced by past wildfire suppression activities.

Grizzly bear and black bear are present in the area but little data are available on denning or other use areas (Map 2-4), and no data are available for population numbers or trends, productivity, or survival. Similarly, specific data concerning population size, trends, productivity, survival and use areas for raptors (Map 2-4), wolves, furbearers, small game, and non-game species are lacking or not available.

Fish habitat is confined to Birch Creek, Preacher Creek, and their major tributaries. Fish species include arctic grayling, round whitefish, broad whitefish, burbot, northern pike, slimy sculpin, and longnose sucker. No anadromous fish are known to occur within the SNCA. With the exception of the slimy sculpin and the longnose sucker, species descriptions and distribution maps can be found in "Alaska's Fisheries Atlas" (McLean and Delaney, 1978). Fishing pressure is generally light, with most fishing occurring on Birch Creek in association with recreational floating.

Water quality, water quantity, and physical condition of the stream bottom are important features of fish habitat. Spawning areas, rearing areas, and overwintering areas are all regarded as crucial habitat. The extent and locations of many of these crucial areas are not known at present; however, a preliminary study has indicated that Birch Creek within the SNCA freezes solid by late winter, precluding any overwintering areas.

Placer mining has adversely impacted some fisheries, especially within the Birch Creek drainage. Mining has physically disturbed the stream bottoms on the upper reaches of Birch Creek and some small tributaries and has caused, during periods of active mining, high levels of siltation and turbidity for the entire length of the main stem. Excessive siltation covers gravel beds, which are essential to fish spawning, while turbidity adversely affects fish populations and also makes it more difficult to catch fish. The overall impact is a reduction in quality and quantity of fish habitat.

Geology

The major structural control is the Tintina Fault Zone, which separates the North Steese into two broad areas. The largest zone is south of the Tintina Fault and is a complexly deformed, regionally metamorphosed terrain of mostly quartzitic and pelitic rocks.

North of this fault the rocks are mostly folded Proterozoic and/or Paleozoic sedimentary rocks which are only slightly metamorphosed. These rocks are in probable thrust contact with mafic igneous rocks and associated charts of late Paleozoic and early Mesozoic Age. These carbonate rock units and the fault contacts are favorable locations for copper, lead and zinc mineralization.

The area south of the Tintina Fault Zone has been intruded by granitic plutons which postdate regional metamorphism. The intrusions are primarily of peraluminous biotite granite. Ultramafic rocks can be found in fault contacts with adjacent rocks. The granitic formations are favorable for deposition of tin, rare earth elements, gold, and uranium.

MAP 2-2

CARIBOU

- Calving area 1950-1962
- Core area 1950-1962
- Calving area 1973-1976
- Calving area 1984
- Movement route

N

5 0 5 10 15

MILES

Little Crazy Mountains

Crazy Mountains

Preacher Creek

Central

Steese Highway

Eagle Summit

Ketchem Dome

Harrington Fork

Birch Creek

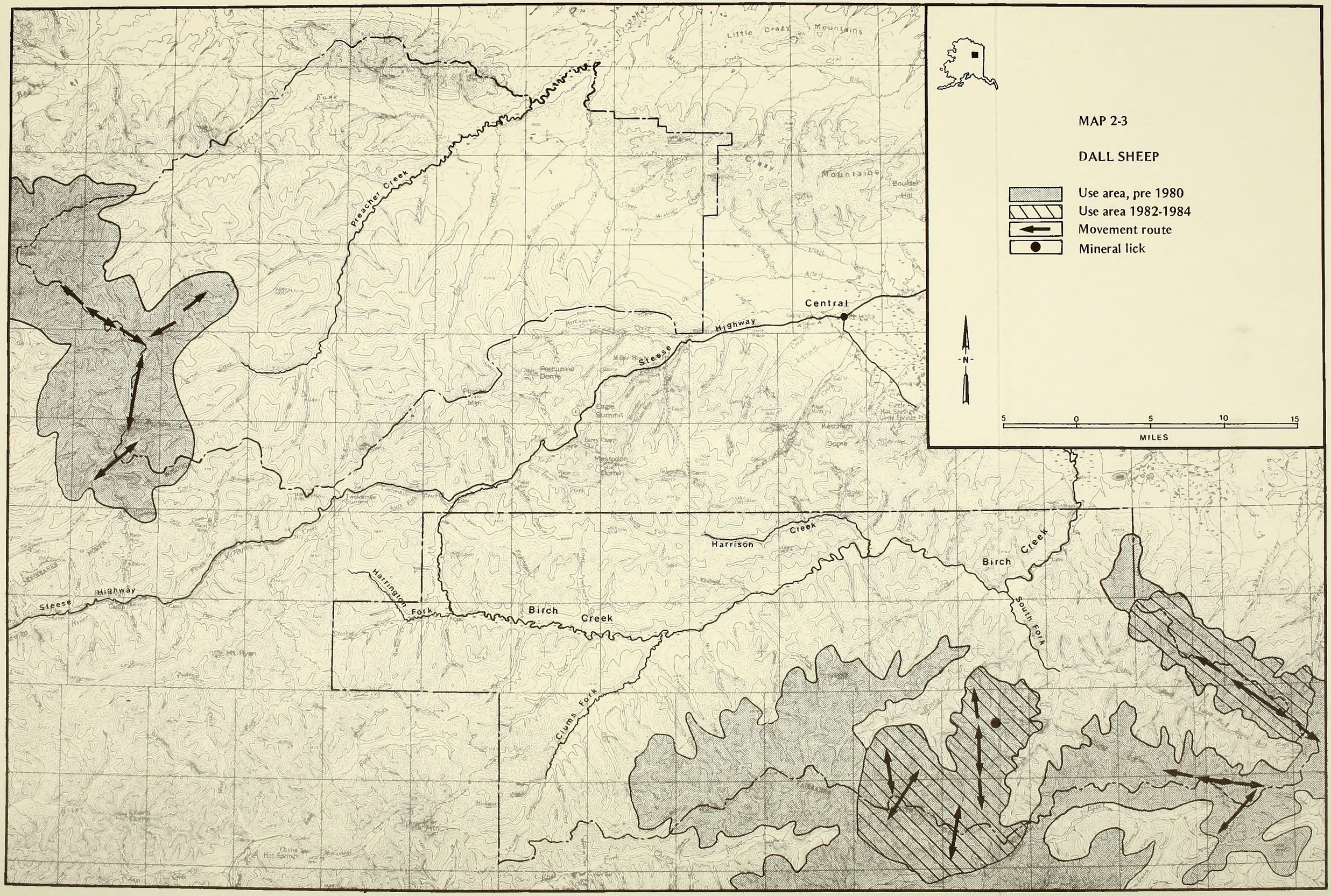
Harrison Creek

Birch Creek

South Fork

Clums Fork

Steese Highway


Little Crazy Mountains
Preacher Creek
Crazy Mountains
Boulder Hill
Central
Steese Highway
Porcupine Dome
Eagle Summit
Ketchem Dome
Mastodon Dome
Harrison Creek
Birch Creek
South Fork
Harrington Fork
Steese Highway
Clums Fork
MAP 2-3
DALL SHEEP
Use area, pre 1980
Use area 1982-1984
Movement route
Mineral lick
N
5 0 5 10 15
MILES

MAP 2-4

GRIZZLY BEAR AND RAPTORS

Spring use area
Denning area
Known raptor nesting habitat

N

5 0 5 10 15
MILES

Little Crazy Mountains
Crazy Mountains
Boulder Hill
Preacher Creek
Central
Steese Highway
Porcupine Dome
Eagle Summit
Mastodon Dome
Ketchem Dome
Harrison Creek
Birch Creek
South Fork
Harrington Fork
Clums Fork
Steese Highway
Chena Hot Springs

Minerals

The locations of mineral occurrences and areas of high mineral potential are delineated on Map 2-5 and Map 2-6. In terms of known value and production levels, gold is the most important mineral in the SNCA. Gold was discovered in the area in 1894 and, presently, placer gold deposits are found in both the North Steese and the South Steese. No lode deposits have been discovered, but the potential exists (U.S. Bureau of Mines, 1978). The quantity of remaining gold reserves is unknown.

In the South Steese, a tungsten deposit has been identified in the vicinity of Puzzle Gulch, Caribou Creek, and the upper Salcha River. Although this deposit has been investigated by private companies, information about the extent and value of deposit is not currently available to BLM.

In the North Steese, hardrock mineral deposits have been discovered at Mount Prindle, Lime Peak, and the upper reaches of the North Fork of Preacher Creek.

Uranium and rare earths have been located at Mount Prindle. Lead and zinc occur in the Lime Peak/Preacher Creek area, and anomalous amounts of uranium and tin have also been found there. No information is available to the Bureau about the extent or value of any of these deposits.

Of the six mineral commodities known to occur, one (tungsten) is considered a strategic mineral and two others (gold and zinc) are considered critical minerals (Bundtzen, Eakins, and Dillon, 1980).

The SNCA lies in a highly mineralized zone which has had relatively little exploration, but the potential for future discoveries is considered good. The minerals most likely to occur include gold, silver, tungsten, lead, and zinc (U.S. Bureau of Mines, 1978).

Oil and gas potential in the SNCA is generally low, but potential is somewhat higher in the basin areas. There is one hot springs in the SNCA, on Big Windy Creek, and that area is presumed to have geothermal potential. Geothermal potential may also exist in the northern part of the South Steese, near Circle Hot Springs.

Public Law 96-487 closed the SNCA to mineral entry, pending completion of this land use plan. However, properly located claims filed prior to passage of the law are still in good standing. There are 2847 such claims, but only a few are actually being mined.

The only mineral currently being mined is gold with some silver being produced as a by-product. Most of the production is taking place in the South Steese. During the 1983 mining season, 12 plans of operation were filed. (Notices of intent are required for mining or prospecting

operations which result in less than five acres per year of surface disturbance; plans of operation are required if more than five acres are to be disturbed (43 CFR 3809.) These 12 operations ranged from exploration activities to full-scale placer mining.

All gold mining is placer mining and usually takes place from May to November when water is available. A typical placer mine employs three to ten people and bulldozers are used to strip overburden and push gravel into sluice boxes (10 to 75 feet in length) which separate the gold from the gravel. Water for the sluice is usually supplied by a diesel pump. The tailings are removed by bulldozers, front-end loaders, or draglines and redistributed over the mined-out area.

Small-scale operations may employ only a two to eight inch suction dredge, which draws up water and gravel simultaneously and runs it through a small sluice box.

Water Resources

The North Steese is drained primarily by Preacher Creek while the South Steese is drained by Birch Creek. Preacher Creek flows northeast, draining the east side of the White Mountains. Its upper portions and tributaries are generally high to medium gradient creeks which run fast and clear, although it eventually becomes a low gradient stream as it enters the Yukon Flats. Preacher Creek is a tributary to Birch Creek. There is very little information available concerning the flows and water quality of Preacher Creek or its tributaries.

Birch Creek originates outside of the SNCA near Eagle Summit and Mastodon Dome as a high gradient, quick flowing stream. After entering the SNCA the gradient lessens, and the water becomes deeper. The tributaries are generally short, high gradient creeks which run fast and clear. However, extensive placer mining operations in the headwaters and on some tributaries produce suspended sediment which causes Birch Creek for its entire length to run extremely turbid during the summer months. Most of the mines contributing to this turbidity are located outside the SNCA. From historical stream flow records collected by the U.S. Geological Survey, the average flow of Birch Creek is around 1500 cubic feet per second during the summer months, with a range of 4500 cfs in June to 500 cfs in October.

Water levels in both creeks can fluctuate markedly throughout the year. The relatively short summers concentrate about 80 percent of the annual runoff into less than five months. On the larger streams, the peak flow for the year usually occurs within one or two weeks after ice break-up. Throughout the rest of the summer, rains usually sustain a relatively high discharge. Peak discharge almost universally occurs from snowmelt following break-up of the ice. Since the area is underlain by discontinuous permafrost, infiltration losses are at a minimum. During

MAP 2-5

MINERAL OCCURRENCES

Gold

Tungsten

Zinc

N

5 0 5 10 15

MILES

Little Crazy Mountains

Crazy Mountains

Preacher Creek

Central

Steese Highway

Harrington Fork

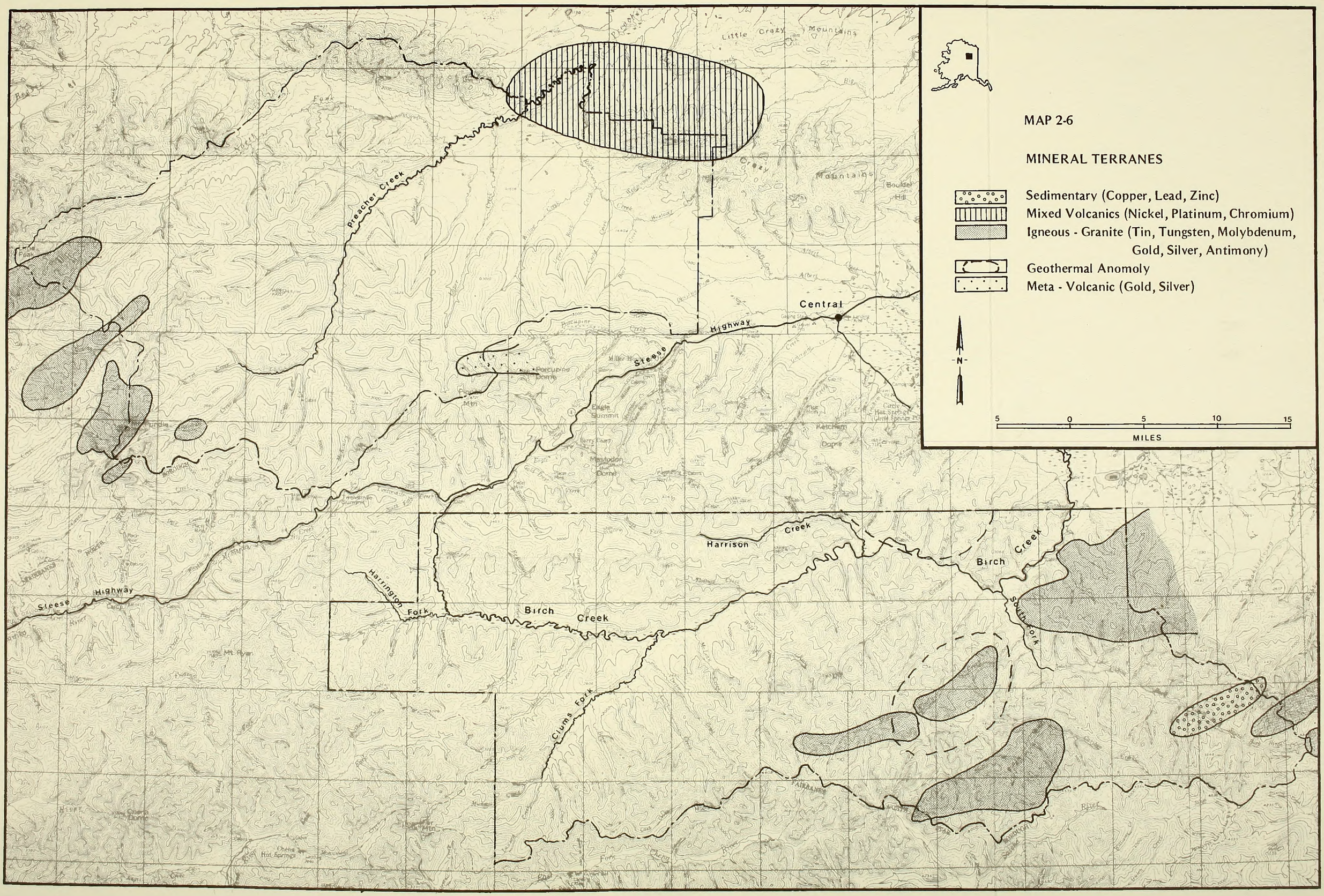
Birch Creek

Harrison Creek

Birch Creek

South Fork

Clums Fork


Little Crazy Mountains
Crazy Mountains
Boulder Hill
Preacher Creek
Central
Steese Highway
Porcupine Dome
Eagle Summit
Mastodon Dome
Ketchem Dome
Harrison Creek
Birch Creek
South Fork
Harrington Fork
Clums Fork
Chena Hot Springs
Chena River
Steese Highway
MAP 2-6
MINERAL TERRANES
Sedimentary (Copper, Lead, Zinc)
Mixed Volcanics (Nickel, Platinum, Chromium)
Igneous - Granite (Tin, Tungsten, Molybdenum, Gold, Silver, Antimony)
Geothermal Anomoly
Meta - Volcanic (Gold, Silver)
N
5 0 5 10 15
MILES

the winter months the largest contribution to stream flow is limited to ground water discharge into the larger streams.

Although there are no snowpack records available for the area, average snowfall in the region could be expected to total 30-40 inches per year. The combination of snow pack and early warm spring temperatures can cause extremely high flood peaks, which are also aggravated by ice jams. This not only causes inundation over banks above the ice jams, but also downstream when the ice breaks up.

Although heavy, intense rainfalls are uncommon, it is possible for a rainfall of one to two inches during the summer months to cause moderate flooding due to permafrost conditions. When rain augments snowmelt runoff and the ground is frozen, the floods have very high peaks and large runoff volumes.

Chemical water quality in the area is generally good, except for the large concentrations of suspended sediment in Birch and several tributaries which occur in the summer due to the placer mining operations. Some tributaries have a reddish brown color, which is caused by the presence of iron or organic compounds in solution.

Ground water availability is limited by the extent and thickness of permafrost. The general availability is estimated to be less than 10 gallons per minute (Balding, 1976). However, availability may be much greater in localized ice-free areas.

Water use in the North Steese consists almost entirely of diversion and impoundments for placer mining operations and the domestic use associated with them. This is also true for the South Steese, but here recreation is also an important use with many people floating Birch Creek because of its easy access.

Twenty-nine water rights have been granted or are pending, with six of these occurring in the Preacher Creek drainage and 23 occurring in the Birch Creek drainage. Most of the water rights granted are for non-consumptive uses such as placer mining.

On Preacher Creek, five of the six rights are for seasonal use for placer mining operations and total about 16 cubic feet per second. The other right is for domestic purposes from a well totaling 1300 gallons per day and is granted for the entire year.

On Birch Creek and its tributaries, 86.5 cfs have been appropriated for placer mining operations, 2.5 cfs have been appropriated for impoundments related to placer operations, and 1560 gallons per day have been appropriated for domestic use. It is assumed that upstream users of the Birch Creek drainage have applied for water rights but the amount is unknown.

Vegetation

Vegetation within the SNCA is characteristic of the natural vegetation found throughout interior Alaska. There are no agricultural areas or areas affected by concentrated development, although vegetation along some of the creeks has been disrupted by placer mining.

Vegetation cover of the SNCA was mapped by manual interpretation of Landsat imagery, and seven major cover types were found to occur. They are described below.

ALPINE TUNDRA

High elevation, well-drained treeless areas are characterized by dwarf shrubs, forbs, graminoids, and lichens. The vegetation cover varies from 0 to 90 percent. Plants commonly seen include mountain avens, Lapland cassiope, blueberry, dwarf willows, moss campion, lousewort, sedges, and a variety of lichens.

LOW SCRUB

This cover type is usually dominated by dwarf birch, resin birch, willows, blueberry, lowbush cranberry, and other ericaceous shrubs. Near timberline, there may be significant quantities of dwarfed white spruce. Higher, drier sites may be dominantly dwarf shrubs. Trees may comprise up to 10 percent of the cover.

TUSSOCKS

These areas are flat to moderately sloping with poorly drained soils, supporting a cover of sedge tussocks. This type usually includes scattered grasses. It may contain scattered, stunted spruce. Tussocks may be found as an understory for coniferous woodland, coniferous forest, and low scrub.

CONIFEROUS FOREST

Lowland coniferous forest is usually composed of black spruce, with scattered ericaceous shrubs, willows, and willow stringers along drainages. Some areas have scattered larch. Ground cover is usually tussocks, lichens, and mosses. Sphagnum mosses are common on the colder, wetter sites where permafrost is close to the surface. These areas may be transitional to coniferous woodland.

Upland coniferous forest is composed of both black spruce and white spruce. The more commonly seen understory plants include: blueberry, lowbush cranberry, crowberry, Labrador tea, dwarf birch, resin birch, willows, sedge tussocks, mosses, and lichens.

RIVERINE CONIFEROUS FOREST

Riverine Coniferous Forests support stands of large white spruce with occasional deciduous species, paper birch, aspen, balsam poplar, alder, and willow.

MIXED FOREST

This forest type is a mixture of broadleaf and needleleaf trees where each contributes at least 25 to 75 percent of the tree cover. In interior Alaska, this may be black or white spruce, or both, mixed with paper birch or aspen. Valley bottom mixes may include balsam poplar. Understory varies considerably with site. Mixed forest occurs from riverine sites to dry highlands.

CONIFER WOODLAND

This type is usually composed of black spruce with 10 to 25 percent crown cover. Understory vegetation is tussocks with low shrubs as dwarf birch, blueberry, willows, and Labrador tea. Sphagnum mosses are common. The woodland is laced with stringers of willow and coniferous forest, usually along drainages. This type contains areas of dwarf spruce scrub and areas too sparse to qualify as woodland.

There is no commercial use of vegetation anywhere in the SNCA. Miners, local residents, and recreationists take small amounts of wood for fuel for personal use. Blueberries and cranberries are sometimes harvested for personal consumption.

No extensive inventory for sensitive or rare plants has been conducted in the SNCA, although small areas with convenient access have been examined by botanists. Two rare taxa, Draba paysonii, a small herb and Oligotrichum falcatum, a close relative of the haircap mosses, have been found near Mount Prindle.

Although there are no federally listed Threatened or Endangered plants in Alaska at this time, BLM has assigned a designation of "sensitive" to some plants that are considered candidate species for T&E listing by the federal government. BLM policy mandates that these plants be accorded the full protection of the Endangered Species Act.

Plants which are on BLM/Alaska's sensitive plant list and which may, based on known habitat requirements, occur in the SNCA are shown in Table 2-2. Whenever a land use action is proposed within one of these habitats, the area should be carefully examined for the existence of the taxon.

SENSITIVE PLANTS WHICH MAY OCCUR IN SNCA

Table 2-2

NAME	KNOWN HABITAT	POTENTIAL CLASSIFICATION
Aster yukonensis	Riverbeds and gravel bars	Threatened
Montia bostockii	Wet alpine meadows and moist centers of frost scars	Endangered
Smelowskia borealis	Calcareous screes at high elevations	Threatened
Smelowski pyriformis	Calcareous screes at high elevations	Endangered
Taraxacum carneocoloratum	Alpine slopes and coarse, well-drained slopes	Threatened

Soils

Four soil associations are found within the SNCA (US Soil Conservation Service, 1979). The following are broad associations, identified largely through aerial observations, so there may be considerable variation in soil properties within each association.

TYPIC CRYOCHREPTS

High rounded ridges and hills separated by broad sloping valleys which dominate the landscape. Soils in this association formed from a variety of parent materials. The dominant soils on the hills consist of very gravelly material weathered from local rock. In the valleys, the principal soils formed from loamy sediment washed from the surrounding hills. The soil is not suitable for cultivation. This association comprises approximately 65 percent of the South Steese.

HISTIC PERGELIC CRYAQUEPTS

These soils generally occur in the floodplains and low hills surrounding major rivers. The soils generally formed from the silty alluvium and loess deposited in the floodplains. The dominant soils are shallow over ice rich permafrost, but in the few, well-drained areas, permafrost may be deep or absent. They are not suitable for agriculture or forestry purposes. This association comprises approximately 29 percent of the North Steese.

PERGELIC CRYAQUEPTS-PERGELIC CRYOCHREPTS

This association occupies unglaciated steep hills and mountains. Most of the association is above treeline. Most soils were formed in a very gravelly or flagged colluvial material weathered from bedrock. They are generally shallow on steep side slopes but gradually become deeper toward the base of the slopes. This association is too cold and steep for cultivation and has only scattered areas of trees suitable for harvesting. This association comprises approximately 35 percent of the South Steese and 65 percent of the North Steese.

LITHIC CRYORTHENTS

At higher elevations, the mountains are very steep and rocky, but valleys and lower side slopes are generally less steep. Ice-rich permafrost underlies soils at the lower elevations. Soils at higher elevations are too shallow over bedrock for ground ice to form. This association comprises approximately 6 percent of the North Steese.

The SNCA is generally underlain by moderately thick to thin permafrost. Permafrost is ground which remains frozen for two years or more. Surface disturbance of the insulating vegetation may cause the permafrost to thaw, possibly resulting in local subsidence, slumping, drainage diversion, and erosion.

The effects of permafrost degradation depend upon soil type and topography. For example, ice-rich silt on a slope will be more severely affected than a gravel deposit on level ground. Thawed soil on a slope may be subject to rapid erosion, gullying, mudslides, or solifluction (the slow creep of a soil mass downhill). On level ground, thawing may produce thermokarsts, which are pits formed when underground ice masses melt. Thermokarsts can be quite large and may become ponds or lakes.

Permafrost also affects ground water supplies by blocking the flow of water and slowing the recharging of aquifers. Wells drilled through permafrost will freeze if not used frequently or protected with a heating device.

Air Quality

There is currently no information on air quality for the area. The only pollutants which occur in the air are fugitive dust from unvegetated river bars, forest fire smoke, dust from mining access roads, and smoke from cabins.

Air quality is, therefore, assumed to be excellent except when smoke from a major fire is found in the area.

ROLE OF FIRE IN THE ALASKAN ENVIRONMENT

Fire has been a natural force in the Alaskan interior for thousands of years. It is a key environmental factor in these cold-dominated ecosystems. Without fire, organic matter accumulates, the permafrost table rises, and ecosystem productivity declines. Vegetation communities become much less diverse, and their value as wildlife habitat decreases.

Fire rejuvenates these ecosystems by removing some of the insulating organic matter and warming the soil. Nutrients are added both by ash from fire, and by increased decomposition rates. Vegetation regrowth quickly responds, and the cycle begins again.

An occasional fire may be critical for maintaining the viability of northern ecosystems, yet fire can also be a threat to human life, property, and valued resources. The realization that fire plays an essential ecological role, but can also be potentially destructive to human life and values can make the fire management decision process very difficult.

Means to reduce the threat from wildfire will be stipulated into any new FLPMA land use leases issued or any shelter provided for recreation use. Use of protective measures will also be encouraged adjacent to any existing or new structures.

FIRE OCCURRENCE

The presence of fire in the natural ecosystem of interior Alaska has a marked effect on vegetative patterns. Fire occurrence and location, its natural spread, and recent (since 1956) suppression actions all contribute to the increase or decline of wildlife habitat and corresponding populations. Future management of wildlife is heavily dependent on the management of fire.

The combination of computerized records of the Alaska Fire Service/BLM, and color infrared photography has identified all known fires occuring within the SNCA from 1956 to 1981. During this period, 24 fires occurred, 23 of which were started by lightning and 80% of these occurred before mid-July. These fires burned a total of 45,982 acres. Twenty-two of the 24 fires received suppression action.

During that period from 1956 to 1981, there was a slight increase in the number of fires reported, but it is likely that the increase was due to increased levels of fire detection, not an increased occurrence of lightning fires.

Assuming the potential for future fires in the area will follow a similar pattern, it can be expected that a large percentage will continue to be caused by lightning although man-caused fires will likely increase as mining and other human activities increase.

Large fires covering several townships could occur in the northeast portion of the North Steese, west of the boundary of the 1957 Central fire. There are extensive areas of continuous black spruce with a well-developed moss layer. Much of the area has obviously burned in the past, but it is ready to burn again. Fires which started in this area in the past have probably spread into upper Loper, Willow, Rock, and Cache Creeks, as well as onto the lower slopes of the Crazy Mountains. A fire would not be able to cross the Crazy Mountains but could bypass the mountains on the west and spread north to the Yukon Flats near the intersection of Preacher and Rock Creeks. Deciduous vegetation intermixed with black spruce between Rock Creek and Loper Creek could slow fire spread to the north.

Fire spread to the south and west of the flatlands would eventually be limited by the dissected topography and sparse fuels, although fires of several thousand acres could burn in this area. Eastward movement of a fire from the Rock Creek area could be stopped if suppression were taken in the area of the 1957 Central fire. There are now enough fuels to carry a fire, but it would be a low intensity surface fire, with spread by spotting unlikely. Direct attack would be possible.

The absence of fuel on most ridgetops of the White Mountains, north of the North Fork of Preacher Creek would prevent fire movement. Fire movement to the Yukon Flats could occur through an area of continuous black spruce in Township 11 N., Range 8 E., Fairbanks Meridian. Although topography is somewhat dissected and stringers of deciduous vegetation are found, fire could burn out of the SNCA if a southeast wind were blowing.

Essentially, the entire southern border of the North Steese is an effective barrier to any spread of fire south toward the Steese Highway. Fire frequency along the western border is very low, and fires would be very small.

No area of the South Steese has the potential for large fires. Fires of several thousand acres are possible along Birch Creek, Clums Fork, and the northwest border of the South Steese. Because the north and west borders of the South Steese do not follow topographic features, fire could easily spread out of the Area to the land to the north. The barren ridges between Ketchum Dome and Mastodon Dome would probably limit further fire movement. The size of past fires along Birch Creek and Clums Fork and their major tributaries has been limited by topography and fuels, and this should continue in the future. Fires occurring near the south and the southeast border of the South Steese would rarely become more than a few acres in size and would go out as they approached the rocky summits to the south.

Access

The only surface access to the area is the Steese Highway, which is a recently improved two lane gravel road.

There are no improved roads within the Area. Numerous trails lead off of the highway into the SNCA, most of which are usable only by tracked vehicles or by foot. These trails were constructed primarily by miners. Many are still used to provide access to active mines, but some are also used by recreationists, with use occurring during the summer. The following is a brief description of the major trails in the SNCA.

1. Montana Creek Trail: This is an access trail to mining claims along Bachelor Creek and Preacher Creek. The trail begins on the Steese Highway and is passable by tracked vehicles and possibly four-wheel drive vehicles as far as the confluence of Bachelor Creek and Preacher Creek. The trail continues north and then loops back to Central, but this section apparently has not been used for some time and may be impassable to most vehicles because of heavy brush.

2. Pinnell Mountain Trail: This is a hiking trail constructed in 1967 by BLM. It is well-marked and has two emergency shelters and trailhead parking at either end. Vehicles are not permitted on the trail.

3. Portage Trails: This is a network of trails which provide access to mining claims on Harrison Creek from Circle Hot Springs. The portions of the trails which lie within the SNCA are rough and usually passable only with off-road vehicles.

4. Birch Creek Portage Trail: This is a rough trail which runs from Circle Hot Springs to Birch Creek via the Portage Creek drainage.

5. Twelvemile Summit Trail: This trail leaves the Steese Highway at Twelvemile Summit and provides access to Harrington Fork. Although portions of the trail may be passable by four-wheel drive vehicles, there are wet spots which can be negotiated only by other types of off-road vehicles.

6. Birch Creek Trail: This trail begins at Mile 96 of the Steese Highway and provides recreational access to Birch Creek. It continues down Birch Creek and was formerly used for access to mining claims, but vehicle use is currently prohibited by the Birch Creek National Wild River management plan.

7. New Mining Access Trails: After the closure of Birch Creek Trail in 1974, miners established new trails from the Steese Highway to Frying Pan Creek and Great Unknown Creek.

MAP 2-7

LAND STATUS

State land
Federal land
Birch Creek Wild River Corridor

-N-

5 0 5 10 15
MILES

Little Crazy Mountains
Crazy Mountains
Boulder Hill
Preacher Creek
Central
Steese Highway
Porcupine Dome
Eagle Summit
Mastodon Dome
Ketchem Dome
Harrison Creek
Birch Creek
South Fork
Harrington Fork
Steese Highway
Chena Hot Springs
Chena Dome
Chena River
Chena Hot Springs Road
Circle Hot Springs
Circle Springs
Circle
Boundary
Fairbanks

8. Harrison Creek Trail: This trail leaves the Steese Highway at Miller House and provides access to mining claims along Harrison Creek. It is a good trail as far as the South Fork of Birch Creek, usually passable by four-wheel drives.

Some trails are claimed by the State of Alaska as public rights-of-way under Revised Statute 2477; however, the Alaska Department of Transportation and Public Facilities does not currently maintain any roads or trails within the SNCA.

There are four gravel airstrips in the South Steese, but all of these strips lie on mining claims and are used only to provide access for mining activities via light aircraft.

Visual Resources

The entire Conservation Area falls within the Northern Plateau physiographic province. While the North Steese is essentially undeveloped, portions of the South Steese are covered by mineral claims. Mining development has and is occurring in the northern part of the South Steese and is believed to be increasing throughout the rest of the Area.

The landforms of the South Steese are defined primarily by the Birch Creek drainage. Lower, rounded mountains and hills with intrusions of bedrock which have been shaped and dissected by flowing water are the characteristic land forms. The North Steese is composed of gentle uplands and low rounded hills, with small areas of compact, rugged ridges and summits. The uplands are separated by the broad, moderately sloping valleys of Preacher, North Fork, and Loper Creeks.

The major tributaries of Birch Creek (South Fork, Harrison, and Harrington Creeks) flow through deep, narrow valleys. The major tributaries of Preacher Creek (North Fork, Rock, and Loper Creeks) flow through broader and flatter valleys.

Tundra covers the mountains in the southern portion of the South Steese and the higher elevations in its northern sections. A good portion of the North Steese is also tundra covered. Birch, aspen, and white spruce occur on well-drained soils on southerly slopes and along creek drainages. On steep slopes, poorly drained sites, or northerly slopes, low-growing spruce and scrub vegetation are found.

Vegetation adds contrast to the landscape when the deciduous trees and tundra turn to shades of gold, orange, and red in the fall. The color contrast against the mountainous backdrop adds significantly to the scenic attractiveness of the area.

No significant viewpoints or outstanding scenic complexes were identified by the statewide visual inventory (Gordon and Shaine, 1978). However, some lands have been identified as having high scenic quality. Most of

the area is not visible from the Steese Highway, but some viewpoints can be reached by hiking trails or off-road vehicle trails. Float boating on Birch Creek currently provides the best opportunity for scenic viewing in the SNCA.

Cultural and Paleontological Resources

Very little of the SNCA has been examined for cultural resources and only four small surface sites have been found. Most of the cultural resource information comes from inventory work in the Birch Creek National Wild River corridor and from ethnographic, archeological, and paleontological data from adjacent areas.

During the Pleistocene the SNCA was geologically part of the unglaciated interior of Beringia. The environment at that time supported large game mammals which, as indicated in other localities, were used by early man. There is a definite potential for discovery of such sites in depositional basins, such as the areas of Preacher, Loper, and Rock Creeks in the North Steese. Large numbers of fossilized bones from these animals have been found along Birch Creek and during mining operations on creeks which drain into the Birch.

The SNCA lies within an area used by Kutchin Athabaskan people. On the basis of Class I literature research for Birch Creek, these people used the river, particularly the lower reaches, during the summer, and used the upland caribou ranges in the fall and throughout the winter. Considering the historically very large populations of caribou, finding archeological caribou fences, base hunting camps, and butchering sites might be expected. At least one caribou fence or moose corral has been documented in the White Mountains on the northeast edge of the SNCA. Such sites might help to further identify earlier caribou ranges. The Fortymile caribou herd has traditionally made heavy use of the semi-primitive areas south of Birch Creek and in the area drained by the South Fork. Ethnographic material indicates that the Tanana Athabaskan people may also have hunted in this country. It appears that the upland portions of the SNCA may contain proto- or prehistoric archeological sites, such as those found on the bluffs and terraces along Birch Creek at the edge of the Flats. These areas and those at Big Windy and the South Fork are also important moose and Dall sheep hunting areas.

Most of the mining activity in the SNCA has occurred at such localities as Birch, Clums Fork, Great Unknown, Harrington, Buckley's Bar, and Portage creeks since 1893. Historic structures, artifacts, and trails have been reported in these areas. Mineral development in these areas may impact potentially significant historic resources.

National Natural Landmarks and Other Special Areas

An area of approximately 170,000 acres which spans the Steese Highway and includes Porcupine Dome, Mastodon Dome and Pinnell Mountain has been recommended by the National Park Service for nomination to the National

Natural Landmark program. ("Proposed Geological and Ecological Natural Landmarks in Interior and Western Alaska," Volume 2, January 1982) Only 40,000 acres of the total acres recommended are located within the SNCA.

Several other special areas which have been proposed as Research Natural Areas are described in the Alternatives in Chapter I and, consequently, are not addressed here.

Subsistence

Use of certain wildlife, plant species and other resources occurs in the SNCA, but at a relatively low level compared to other areas closer to villages in the region. The following discussion summarizes such use by residents of Birch Creek Village, Circle, Central, and by individuals residing in or near the area.

Data on the community of Birch Creek are primarily taken from (1) the Alaska Department of Fish and Game publication Subsistence Land Use in Upper Yukon -- Porcupine Communities, Alaska, by Richard A. Caulfield, Technical Paper No. 16, Division of Subsistence, June 1983; (2) BLM staff observations of subsistence resources and usage; and (3) personal conversations with subsistence users of the region, personnel in the Alaska Department of Fish and Game, and other State and federal agencies.

In addition, information on the community of Circle was provided by the Anthropology and Historic Preservation Cooperative Park Studies Unit Occasional Paper No. 20, Subsistence Use in and Around the Proposed Yukon-Charley National Rivers, by Richard A. Caulfield, June 1979.

Because Birch Creek Village is located over 25 miles north of the northern boundary of the SNCA, the majority of its direct subsistence use occurs outside the SNCA. Typically, moose and bear hunting extends only up Birch Creek to around the Steese Highway Bridge, about 50 river miles downstream from the northeastern boundary of the SNCA. Also, moose and bear hunting is reported up Beaver Creek, but generally no closer than about 15 miles north of the northwestern boundary.

Customary subsistence usage of other resources, such as wood, vegetable matter, fish, birds, and small mammals similarly occurs nearer Birch Creek Village itself rather than in the SNCA. One partial exception is trapping, which extends from near the Yukon River into the northern portion of the SNCA, including the confluence of the North Fork of Preacher Creek and Preacher Creek. In this area the species caught include muskrat, beaver, wolverine, marten, wolf, fox, and otter.

In the past, the Athabaskan population of the region may have hunted sheep and caribou in the northern portion of the SNCA.

Another subsistence-related consideration for Birch Creek Village residents is water. They fish and obtain their only supply of drinking water from Birch Creek. Currently, existing placer mining in the SNCA

and adjacent areas causes turbidity along the entire length of Birch Creek. This in turn affects grayling fishing. There are sporadic local reports of occasional salmon in the lower part of Birch Creek, but numbers are thought to be minimal. No spawning areas are known for the Birch Creek system.

Use of subsistence resources by the residents of Circle is focused on the salmon fishery in the Yukon River. However, whitefish are reportedly taken by nets placed in Birch Creek during the summer and fall, downstream from the SNCA. Moose and bear are both taken by hunters using river boats on Birch Creek, but, again, predominantly outside the SNCA.

Caribou from the Fortymile herd were taken in the flats around Medicine Lake and along the Steese Highway until the mid-1960s. Caribou populations dropped and migrations through the area virtually ceased. Few caribou have been taken since that time.

Harvest of beaver and muskrat occurs in the spring along Birch Creek downriver from the Steese Highway Bridge.

OTHER SUBSISTENCE USES OF THE STEESE NATIONAL CONSERVATION AREA

Certain subsistence uses of the SNCA by residents of Central do occur but, like Birch Creek Village and Circle uses, are limited in part due to topographic considerations and the availability of adequate subsistence resources closer by.

Hunting for bear and moose along Birch Creek is reported both by area subsistence users and seasonal sport hunters who float the river. Sporadic hunting in the vicinity of Willow and Rock Creeks (northwestern part of the northern SNCA) is also indicated. Occasional trapping takes place in the same northern SNCA areas, plus along Birch Creek and some of its tributaries closer to Central.

While Birch Creek Village, Central and Circle residents make up the majority of subsistence users in the vicinity of the SNCA, certain other individuals and/or families use the general area to varying degrees. During the months that mining is occurring on existing claims in the SNCA, miners use local resources on an opportunistic basis for subsistence purposes. Their usage, however, appears to be relatively minimal due to their major concentration on mining. Other subsistence users are relatively isolated, such as one family which resides along Beaver Creek more than five miles northwest of the North Steese. Their activities include virtually the full range of subsistence uses such as hunting, trapping, fishing, and collecting wood for fuel and construction, berries, water for domestic use, and other wild resources.

Historically, many caribou were taken by hunters along the Steese Highway during migration of the Fortymile herd from summer to winter ranges. Users included area subsistence hunters and non-local sport hunters. In the 1920s, the Fortymile herd contained over 500,000 caribou, but dropped

to under 20,000 animals by the 1940s. Currently, the present herd size is 14,000. In recent years, the smaller caribou herd usually stays south of the Steese Highway. However, it is believed that if the Fortymile herd continues to increase, caribou will again use the northern SNCA and White Mountains NRA for calving and for both winter and summer range. If or when the ADF&G goal of 50,000 caribou is met, opportunities for subsistence use of caribou will be enhanced.

Overall, the intensity of subsistence use in the SNCA is relatively low. It depends both on the numbers of resources present and on the ability and frequency of human access. At the present time, both moose and caribou populations are low but may increase in the future. As for access, the Steese Highway is the only improved road into the area. Some unimproved trails lead from it to existing mining locations. Currently, "No Trespassing signs discourage casual use of some public lands where mining occurs by non-local residents. Otherwise, there is no restriction of access to local subsistence users. As noted, most subsistence users from Birch Creek Village, Central, and Circle harvest resources closer to their villages and not within the SNCA.

Additional information on access trails and resources of the SNCA may be found in the Management Situation Analysis on file at the Yukon Resource Office, BLM, Fairbanks, Alaska.

Social and Economic Conditions

There are no year-around residents within the planning unit although a small number of placer miners live on their mining claims during the mining season, May through September.

The people who will be most affected by the management of the SNCA are the residents of the surrounding area, which includes the communities of Fairbanks, Central/Circle Hot Springs, Circle, and Birch Creek. Populations of these communities are shown in Table 2-3.

1980 POPULATION

Table 2-3

Fairbanks North Star Borough	58,983
Central*	36
Circle	81
Birch Creek	32

*Includes the residents of Circle Hot Springs
Source: Bureau of the Census, 1980

Fairbanks is the trade and transportation center for the interior of Alaska and is linked to coastal Alaska by paved highways, a railroad, and scheduled air transportation. The area experienced rapid economic and population growth during the construction of the Trans-Alaska Pipeline in the 1970s. Immediately after construction, population decreased somewhat, but the area is now growing again. Much of the Fairbanks economy is still directly or indirectly tied to the oil industry. Other sources of jobs include government (including the military), tourism, transportation, and mining.

The community of Central is located approximately 128 miles northeast of Fairbanks on the Steese Highway. Circle Hot Springs, located about eight miles from Central on a spur road, can be considered part of the Central community. There is no incorporated government in the area.

The Steese Highway is largely unpaved. The Alaska Department of Transportation and Public Facilities plans to complete improvement of the road within the next few years. During the winter months, when the highway is not maintained, Central is accessible only by light aircraft or overland travel via tracked vehicle. Placer mining and tourism are the two principal industries of the area with both occurring mainly during the summer months, when the population of the area increases far beyond the number of permanent residents, perhaps to as high as 300.

At the end of the Steese Highway, about 30 miles beyond Central, lies Circle. Like Central, Circle has no highway access during the winter, but it also has an airstrip. Most of the population is Athabascan. The economy of Circle is sustained by the village corporation (set up under the Alaska Native Claims Settlement Act), and a few small businesses, including a store and an air charter service. Hunting, fishing, and trapping also contribute to the well-being of the residents.

Birch Creek is a small Athabascan community located in the Yukon Flats. Birch Creek has no road access and can be reached only by air or by boat via the Yukon River and Birch Creek. Neither Circle nor Birch Creek are incorporated.

Placer gold mining is one of the major economic activities conducted in and around the SNCA. There are between 80 and 90 mining operations in the Central area, all of them independent, relatively small operations. This makes data collection extremely difficult.

Gold is commonly sold to Fairbanks buyers for cash, or it may be traded directly for goods and services. However, it is clear that gold production is of considerable importance; and, in addition to providing seasonal employment for several hundred people, the placer mining industry contributes to the economies of Circle, Central, and Fairbanks through the purchase of heavy equipment, fuel, supplies, and technical

services. Total expenditures by the placer mining industry in Fairbanks in 1982 were estimated to be $31,141,000 (Alaska Department of Commerce and Economic Development, 1983). It is not possible to say what portion of this amount is due to mining in or near the SNCA, but the Central area is one of the major mining districts served by Fairbanks.

The only other major economic activity conducted in and around the unit is recreation. It has been estimated that the recreation industry provides over 1,000 jobs in Fairbanks and results in annual expenditures of approximately $27,000,000 (Alaska Department of Natural Resources, 1983). Again, it is not possible to say how much of this amount is directly related to the planning unit.

SOCIAL ATTITUDES AND LIFESTYLES

Independence and self-reliance are values which are held in high esteeem by most Alaskans. This is especially evident in the rural communities, where the lack of government is often due to explicit opposition to government rather than lack of population or a tax base.

Almost all interior Alaskans consider outdoor recreation extremely important, but there is disagreement between those who want to maintain primitive recreational opportunities and those who would like development of facilities and improved access.

Hunting and fishing are also regarded as extremely important, both by sportsmen and subsistence users.

CHAPTER III - ENVIRONMENTAL CONSEQUENCES

Introduction

Chapter III is a presentation and analysis of the potential impacts and a means of mitigation of the actions allowed in each alternative.

This chapter is arranged similarly to Chapter I. Potential environmental effects resulting from the action scenerios described in Chapter I are discussed first. These effects are general in nature and will vary by degree and specific location of the land use allocation for each alternative. Possible mitigation measures will also be identified. The effects of actions that can be specifically identified vary by alternative and are discussed along with possible mitigation requirements.

An analysis and discussion of ANILCA, Section 810(a) findings is found at the end of each alternative action and is further summarized near the end of the chapter.

Adverse environmental effects which cannot be avoided should the Proposed Plan be implemented, are identified. The relationship between the short-term uses of the environment and the maintenance and enhancement of long-term productivity is also examined. Finally, irreversible or irretrievable commitments of resources are identified.

Descriptions of Impacts Common to all Alternatives, Including the Proposed Plan

RECREATION

The activities required for mineral exploration and development significantly conflict with primitive recreational values. Those values can be reduced by mining in localized areas, where new access is developed to mineralized areas. This would be especially noticeable when active or increased mining development occurs in areas previously undisturbed. Water quality would be lower where placer mining occurs. This lower water quality would impact fishing, availability of potable water, and the ability to enjoy float trips on clear waters. Dust and noise from active mining operations would adversely impact existing primitive recreational opportunities. Miners and recreationists would compete for favorable campsites in the headwater areas of the Birch Creek drainage, and there would be disputes as to whether access routes should be maintained to mining or to recreational standards. Similar conflicts would occur where permits are issued for ancillary facilities related to mineral development.

Some impacts associated with mining can be mitigated to minimize conflicts with recreation management goals and objectives. These actions include special stipulations required for each specific mining operation under 43 CFR 3809. Special attention would be given to (1) timely and

effective recontouring and revegetation of disturbed sites to prevent further siltation, water turbidity, and impact to scenic values; (2) requiring the enforcement of Environmental Protection Agency and State water quality standards and setting and enforcing more stringent standards where necessary to protect crucial values; (3) closing some areas to placer mining where necessary to prevent degradation of water quality and primitive values; (4) managing mining-related access to minimize disturbance, especially in primitive and river corridor areas where access to existing valid claims is necessary; and (5) implementing a comprehensive monitoring program that would assure that stipulations are working as intended.

Recreational use and development of the recreation resource would cause some change to existing primitive and wilderness values. Coupled with improved access, increased recreational use can be detrimental to the primitive values sought by many recreationists. Campsites and trails may suffer from overuse. Man/bear encounters will increase.

These effects can be mitigated or avoided. Recreational use would be monitored to assure that the goals and objectives of the recreational program are being met. Brochures, maps, signs, and other public use information can be developed to educate visitors about minimum no-trace camping techniques and methods of handling bear encounters.

The use of off-road vehicles and aircraft can impact recreational values and resources. ORVs can damage vegetation and destroy the primitive and wilderness values of solitude and undisturbed areas. Conflicts may arise between recreational users favoring motorized as opposed to non-motorized recreational opportunities. Low-flying aircraft may have a negative impact on those people enjoying a primitive, non-motorized recreational experience.

The restriction or prohibition of ORVs and low-flying aircraft can mitigate some of these impacts. Some areas can be closed or limited to ORV use. Trails and facilities for ORV use can be developed in other areas to avoid conflict with primitive values. Heliports and landing strips can be designed and located to minimize impacts. ORV and aircraft users can be educated concerning these conflicts and the appropriate use of their vehicles.

The use of fire suppression equipment, especially bulldozers, can have a significant impact on primitive values. Fire lines not only impact the area through lowered scenic values and erosion, which affects water quality, but they also often provide access for unwanted ORV use. Short-term impacts on primitive values can also result from letting areas burn with little or no suppression effort. Although fire is a natural process, the impact of fires in pristine areas is often viewed negatively by users. While the impact from fires is a relatively short-term effect, the impact from some fire suppression techniques and the associated access they provide may have long-term impacts on primitive values.

To mitigate these impacts, fire lines can be rehabilitiated to avoid water quality damage and can be made unusable for unwanted ORV use. Construction of new recreational facilities may require revision of existing fire plans for the SNCA.

Construction of roads, utility and transportation rights-of-way, and material sites can adversely effect recreational resources, primarily primitive values. Conversely, the lack of access would impact recreational use. Installation of communication sites or other developments may intrude on or impact primitive values.

The issuance of rights-of-way or use permits for development within the Area can be closely screened to assure compliance with stated recreational goals and objectives. Cooperative agreements with other agencies and private inholders can be completed to assure public access for recreational use.

WILDLIFE

There are six program areas with the potential to impact terrestrial wildlife resources (habitat, populations, human-use opportunities). Those programs are recreation, off-the-road vehicles and aircraft, fire management, rights-of-way and other realty actions, the wildlife habitat program itself, and mineral development. The degree of impact on wildlife from various land uses depends on the three major factors of location, timing, and extent of the land use.

Recreational activities including construction of recreational trails, campgrounds, and public-use cabins would result in minimum direct habitat loss. Increased visitor use in the overall area and in association with facilities can alter or preclude wildlife use and contribute to an increase in human/bear conflicts. More facilities and recreational access would increase human use of the wildlife resource as well as increase the demand for more wildlife.

Management controls to avoid or minimize recreation-related adverse effects include incorporation of wildlife input into the recreational site planning process to avoid installation of facilities and increased visitor use in crucial use areas; monitoring visitor-use levels to provide early indication of conflicts with normal wildlife use patterns (which may result in regulation of visitor use); maintenance and design of recreational facilities to minimize attraction of bears; and public awareness of bear behavior through brochures or other means.

Off-road vehicles and low-altitude aircraft use can result in a disruption of normal wildlife behavior and use patterns. Specific trails, roads, airstrips, or airports that are heavily used may alter or preclude wildlife use in the immediate vicinity. Use of off-road vehicles and aircraft would facilitate a greater opportunity for human use of the wildlife resource.

Management controls to avoid or minimize adverse effects to crucial habitats at crucial times include; surface use restriction of ORVs by requiring a minimum 1,500 foot altitude and one mile horizontal distance from the crucial habitat for low-flying aircraft, and incorporating the wildlife information into the site planning process for roads, trails, airstrips, and other facilities.

The use of aircraft in support of fire suppression activities can result in a short-term disruption of wildlife behavior and use patterns. Fire benefits most wildlife habitats through increased habitat diversity and forage quality. Minimizing suppression efforts, when possible in crucial habitats at crucial times, would result in long-term habitat improvement.

Realty actions. Construction, maintenance, and use of permanent access routes and required material sites would result in direct habitat loss and could alter or preclude wildlife use over the long term. Additionally, heavily used roads may disrupt normal wildlife movements resulting in areas being unavailable for wildlife use. Remote communication facilities are supported and monitored by aircraft in ways that can result in altering or precluding wildlife use in the area. Incidental uses, such as permits for temporary camps or other facilities may result in short-term disruption of wildlife use with minimum long-term habitat loss. Increased access via permanent roads and improved trails would facilitate a greater opportunity for human use of the wildlife resource.

Adverse effects can be lessened by incorporating wildlife input into the permit approval process at an early stage in order to avoid crucial wildlife use areas.

Actions of the wildlife habitat management program which could affect wildlife include the use of biotelemetry observation from low-level aircraft, temporary field camps, and prescribed fire. No effects on overall populations are expected from tagging and monitoring of wildlife. Short-term disruption of wildlife can occur during monitoring as a result of aircraft use. Short-term alteration of wildlife use patterns may occur in the immediate vicinity of temporary field camps. Prescribed fire effects would result in long-term habitat improvement. Short-term air quality and visibility degradation would occur because of smoke.

Mineral development activities have the greatest potential for wildlife conflicts. Exploration may result in localized habitat loss. Use of ORVs, aircraft, and establishment of camps may, on the short term, disrupt or preclude wildlife use in the vicinity. Access requirements for mineral activities can result in direct habitat loss and indirect long-term effects because of increased visitor use. Conversely, access to previously inaccessible areas would facilitate a greater opportunity for human use of the wildlife resource as well as of mineral resources in the overall area. Although the actual acreage is relatively small,

unavoidable adverse effects result from mineral development and related access, camps, mining pits, and tailings disposal areas. Wildlife use in the vicinity of these areas will be altered, disrupted or precluded as an indirect effect of human use. Many of these effects would be cumulative over time. Some could have a substantial impact over the long term because of increased demands and associated conflicts with mineral development, improved access, increased visitor use, and greater demand for consumptive and non-consumptive use of the fish and wildlife resources.

Management controls to avoid or mitigate mineral exploration, access, and development impacts may include (1) withdrawing crucial habitats from mineral entry (2) aerial and surface use restrictions in crucial habitats during crucial times, and (3) consolidation of mineral access routes into designated corridors. Site-specific mitigation plans could be required for proposals in caribou and Dall sheep crucial habitats. Mitigation plans, when required, would include measures to avoid, mitigate, or rehabilitate adverse effects and would be cooperatively reviewed by BLM and ADF&G. Restriction of surface use in and adjacent to crucial habitats during crucial periods is expected to minimize disruption or alteration of wildlife use.

Fish

Birch Creek and its tributaries comprise the fish habitat within the SNCA. No lakes in the area contain any significant year-round habitat. Many tributaries have been heavily and extensively mined for placer gold deposits. Mining and exploration is continuing. Most mining presently takes place outside the SNCA. Birch Creek fish habitat is severely impacted by mining through heavy stream siltation and high turbidity. Sport fishing for arctic grayling, the prime sport fish in the area, is non existent on mainstem Birch Creek. Some of the unmined tributaries provide sport fishing opportunity for grayling. Water ceases to flow in Birch Creek within the SNCA by late winter. There are no known overwintering areas.

There are five program areas with the potential to impact fishery resources, such as habitat, populations, or use. These programs are recreation, fire management, realty, forestry, and mineral development.

Recreation. The recreational use of ORVs could impact fishery resources to a limited degree. The impacts would result from in-stream use of vehicles and from the erosion of trails with subsequent increased levels of stream siltation and turbidity. Anticipated recreational use of ORVs is not expected to measurably impair fish habitat. No irreversible or irretrievable commitment of resources would occur. Intensive ORV use could cause localized short-term impacts. Problem areas can be successfully mitigated by regulation and application of standard land reclamation practices.

Suction dredging by recreationists would cause unavoidable, short-term, adverse impacts. Impacts are physical alterations of stream bed, increased water turbidity, and destruction of spawning beds and deposited eggs.

Impacts to fishery resources from the fire management program can result from the effects of severe forest fires or localized intense burns and from the effects of fire suppression activities. Severe fires can cause the destruction of ground cover with resulting erosion of soils, especially on steep slopes. In some cases, fires burn through riparian areas thereby killing stream bank trees. This can later result in the streams becoming clogged with debris and windfall as the dead trees topple into the creeks. Such occurrences are rare and not expected to be a problem. If such a fire does occur, the impacts may be unavoidable.

Fire suppression activities that have caused negative impacts include fire line construction that has caused soil erosion and stream siltation, and the use of chemical retardants that can be toxic to aquatic life if accidentally applied to waterbodies.

Fire suppression activities are governed by stipulations designed to minimize impacts to other resources. Stipulations on fire line construction and rehabilitation are designed to prevent erosion. There are no unavoidable adverse impacts except where permafrost erosion is extreme. Most impacts would be short-term, and long-term productivity of fish habitat would not be affected. There would be no irreversible or irretrievable commitment of resources caused by any aspect of this program.

Realty-related actions (leases, permits, etc.) are usually initiated at the request of the general public or other governmental agencies. The level of realty actions varies by the alternative selected. Road building and attendant needs for construction gravel would be most likely to cause impacts to fish habitat. New roads may open areas which now have light use due to difficult access. Gravel removal from streams usually results in more adverse impacts than gravel removal from upland areas. Techniques to minimize impacts to stream beds or riparian areas, and to assure fish passage, can be employed to offset effects. Such techniques are usually stipulated as conditions of permits or rights-of-way. Impacts can be short- or long-term depending on the scope and duration of the activity. Siltation, increased stream turbidity and physical disturbance can be minimized in almost all cases. No major unavoidable impacts are expected.

Forestry. Forest harvest practices can result in long-term damage to fishery resources, but large scale operations are not anticipated in any alternative of this plan.

Impacts from the mining of lade minerals stem from access road development, mine pit locations, overburden and spoil placement, and location of mill sites relative to waterbodies. The construction of

roads can cause erosion and siltation impacts and the faulty design of stream crossings can adversely impact fish movement. Use of gravel sources in riparian areas can result in losses of quality gravel spawning areas. The erosion and/or leaching of overburden and spoil sometimes results in the introduction of toxic materials into aquatic environments. Water run-off from mill sites can cause oil, fuels, soil, or other materials to be introduced into aquatic environments. These effects can be mitigated with preventive measures and effective rehabilitation.

Potential problems can be resolved through application of development techniques designed to mitigate impacts to aquatic and other resources. Short-term unavoidable impacts may occur during early construction phases and would primarily center around erosion problems before stabilization took place. There should be no irretrievable commitment of fishery resources.

Oil and gas exploration can result in some impacts. Seismic explosions can kill fish or their eggs if conducted too close to waterbodies. Crossing streams with heavy equipment can result in localized problems relating to destruction of stream banks. Water flow in Birch Creek is low in winter, therefore, winter construction of ice roads would cause the loss of necessary water in fish overwintering areas.

The only unavoidable adverse impacts from oil and gas exploration would be limited to vegetation disturbance, provided there is no industrial use of stream water during the winter. Fish overwintering areas are limited, and they depend on the small amount of ground water which enters the major streams. Industrial use of stream water during winter could have serious impacts on fish populations. Other impacts would be short term and could be mitigated. There would be no irreversible or irretrievable commitment of resources and no impacts to long-term productivity.

Placer mining presently occurs on valid and exisiting claims and would continue with all alternatives. The general impacts of placer mining are (1) stream bed destruction with long-term loss of physical habitat, (2) increased downstream turbidity causing decreased light for algae production and inhibition of feeding activity of fish, (3) increased siltation, causing silt to be deposited over gravels important for both the production of aquatic invertebrates and the spawning areas for fish; and (4) water chemistry changes, including the introduction of abnormally high levels of toxic heavy metals. Impacts may be short- or long-term depending on the success of reclamation procedures, specific location of the mined area and the size of the mining operation. Many impacts may be extremely long-term. In the case of certain massive stream bed changes and alterations, significant adverse impacts can be so long lasting that they could be considered an irretrievable commitment of the resources.

MINERALS

Mineral development can adversely affect other resources and their existing values in all alternatives. General adverse effects are listed below.

1. Loss of wildlife habitat through changes in the existing vegetation.

2. Loss of wildlife habitat through displacement caused by human activities in previously undisturbed areas.

3. Loss of soil and subsequent changes in the natural ecosystem.

4. Loss of fish habitat through lowered water quality and physical changes to the drainage system.

5. Noise association with mining that lowers existing primitive and wilderness recreational opportunities.

6. Dust from roadways and disturbed areas and emissions from motorized equipment and processing plants.

7. Loss of primitive, undisturbed scenic values.

8. Loss of cultural, and especially paleontological, resources.

Losses resulting directly from mining activity are relatively small. The indirect effects of new access and human activity can be long lasting. Table 3-1 summarizes anticipated mining areas that might be physically occupied under the alternative plans.

SUMMARY OF AREAS DIRECTLY OCCUPIED BY MINING

Table 3-1

CHANGE AGENT	PROPOSED PLAN	ALTER-NATIVE A	ALTER-NATIVE B	ALTER-NATIVE C	ALTER-NATIVE D	ALTER-NATIVE E
Placer						
Total Claims	782	782	694	782±	782±	782±
Active Claims	22	20	20	24	30	30
Acres Disturbed Per Year	110	100	100	120	155	155
Lode Claims						
Total	-0-	-0-	-0-	-0-	-0-	-0-
Active Acres	-0-	-0-	-0-	-0-	-0-	-0-
Acres Disturbed Per Year	-0-	-0-	-0-	-0-	-0-	-0-
Roads						
Miles	34	49	49	49	104	104
Acres Disturbed Per Year	62	116	116	116	171	171
Total Acres Disturbed	172	216	216	236	326	326

The acres of disturbance are anticipated maximums and based on interpretation of existing literature and data from experts familiar with the area. As shown in the table, no lode development is expected in the SNCA within the next ten years. However, exploration and new staking would take place in many of the areas formerly staked. Development would occur under the 1872 Mining Law as amended.

Current records show there are 2,847 claims in the SNCA. About 2,000 were claimed by one mineral company and have been allowed to expire. The remaining 782 are perfected placer claims. The total number of claims are declining since no new claims may be staked and some have been found null and void because of failure to maintain recordation and assessment requirements. There are 14 claims being mined. Access includes over 20 miles of roads. The total acreage currently being mined is 106 acres. Measures to mitigate and reduce the impacts of mining on the landscape include:

(1) adherence to the Surface Management Regulations,

(2) compliance with State and federal water quality standards,

(3) use of well-designed, functional containment ponds for settleable solids,

(4) use of floculants to remove collodial particles,

(5) total recycling of water by placer mining with no discharge to streams,

(6) wintertime access for movement of heavy equipment to mine site,

(7) recontouring of mined areas, in accordance with a reclamation plan,

(8) revegetation of disturbed areas,

(9) proper location and design of access roads and airstrips, and

(10) reclamation plans and detailed plans of operations.

Mining and the mineral development industry is adversely affected by mineral withdrawals or regulatory restrictions. These effects are listed below.

1. Closure of lands to mineral development. A land withdrawal precludes new mineral exploration and development. Miners and mining companies will not explore for minerals where there generally is no opportunity to develop the resource.

2. Additional cost incurred by existing operations to meet regulatory requirements. Stipulations on water quality, reclamation and mining practices would add costs that would make it economically unfeasible (impractical) to operate. This would mean a potential loss of income to the miner and to the local economy.

3. Seasonal operating restrictions would adversely affect the profit of the industry. The climate currently restricts operations to four months of the year. Further use restrictions for land management reasons could be significant.

4. Access restrictions would raise the cost of access to the mine site. Operators would have to plan a season in advance. This would preclude the use of some equipment and dictate the size of the operation. Some operators would go out of business or choose not to operate in that area.

WATER RESOURCES

There are four activities which have the potential to impact the water resources of the area. These are minerals, access and ORV use, forestry, and fire management. All impacts from these activities would be comensurate with the degree of use or development and location of the activity. Most of the adverse impacts can be mitigated through management practices, application of new technology or through regulation. Most of the impacts would be short-term in nature and would not result in an irretrievable commitment of resource values.

It has been demonstrated that placer mining, using current technology, causes adverse impacts on the water resources. Most of these impacts can be mitigated to some degree, but there are certain unavoidable adverse effects. The degradation is due to erosion of disturbed areas or to soil, organic particles, or naturally occurring toxic materials remaining suspended or dissolved in the waters used in sluice boxes. Table 3-2 is a summary of placer mining efforts from a study conducted in 1981. The last two locations (500' downstream, tailrace) indicate the quality of water which is returned to the environment from operations with settling ponds and those without ponds, respectively. As can be seen, the average turbidity increase for settling pond treated water is about 1,700 NTU while untreated tailrace waters increase by around 4,000 NTU. The effects of inflowing turbid waters on a stream system become less noticeable downstream when there is ample water flow for dilution.

Possible management controls to mitigate the adverse effects of placer mining include water recycling, settling pond material classification, and reclamation of disturbed ground. These, and other practices, can substantially mitigate the effects of placer mining by removing most of the settleable solids. However, there is currently no economically

feasible method of removing all particles from the water. Colloidal material would remain in the water, increasing the turbidity. This is an unavoidable adverse effect of placer mining.

Mining activity also results in onsite deterioriation of watershed conditions. This also results in the introduction of sediment and stream channel erosion. This effect can be adequately mitigated through proper rehabilitation or reclamation of disturbed areas.

Access and ORV use into an area for mining or recreational purposes can have either a positive or a negative effect on the water resources. Uncontrolled, heavy use of light ORVs in an area during summer months can lead to severe watershed degradation and surface disturbance. Erosion from run-off in disturbed areas causes increased siltation and degraded water quality in natural waterways and riparian areas. Cross-country movement of heavy equipment for mining operations during summer months also leads to the same problems.

Use of ORVs between freeze up and break up during periods of adequate snow cover would have no effect on water resources.

Mitigation of adverse impacts due to access would consist of monitoring and controlling ORV use areas, proper location, and construction of roads or trails, limiting cross-country travel to winter months, and closing areas to surface uses.

Forestry practices for the harvest of wood products to be used as firewood or house logs are normally very small scale with little potential for impacts to water resources. The two primary concerns would be stream siltation from access and harvest operations and the introduction of slash to the stream channel. Both of these impacts can be mitigated or avoided by proper timber practices, setbacks from stream bank and seasonal-use restrictions.

Two aspects of fire management can impact the water resources. (1) Increased erosion and movement of ash and debris into stream channels from the burned areas can raise the sediment level in the streams and affect water quality. (2) Fire suppression activities can have a much larger impact. Use of equipment can disrupt the vegetative mat, thus increasing erosion and sedimentation and making natural revegetation of the area much more difficult. These impacts can be mitigated by limiting fire suppression activities and requiring fireline setbacks from riparian areas and stream channels.

VISUAL RESOURCES

Scenic quality can be affected by five of the resource programs: minerals, realty actions, off-road vehicles, recreation, and fire management.

Mineral development would have the greatest effect on scenic quality. Surface-disturbing activities that would result from road or trail construction, seismic lines, camp construction, and the actual mining or prospecting activity could seriously degrade the scenic quality of a given area. Area or site impacts, such as camp construction and mine tailings, are most easily mitigated through site design and rehabilitation. Linear disturbances such as roads, trails, or seismic lines are often more difficult to mitigate since they may traverse large expanses of the landscape.

Cumulative impacts are most likely to result from the indirect effects of development. An individual project may be satisfactorily mitigated through project planning and site rehabilitation, but several similar activities with the associated influx of people occurring over a given area may have an irreversible cumulative effect.

The effects of realty actions, such as roads and trails that are established by rights-of-way, are similar to those described for mineral development. Other activities such as communication sites, utility lines, or temporary as well as permanent facilities may occur. Communication sites and facility developments are area or site impacts that are generally more easily mitigated through proper location, design, and construction. Utility lines would result in similar linear visual impacts as found in road or trail development and would be more difficult to mitigate.

The visual impacts resulting from off-road vehicle use would be related primarily to creation of new lines in a natural landscape. Use of established trails is generally acceptable, except when use results in new or more surface disturbances than currently exist. Other established trails may need to be relocated and rehabilitated or closed to prevent further damage. Indiscriminate use of ORVs, even those of less than 1,500 pounds GVW, may result in permanent new trails or surface disturbances.

Recreation may impact scenic quality through development of poorly located, designed, constructed, and maintained facilities and trails. Even well-located and designed recreation facilities may impact scenic quality in some areas, such as primitive. These would be long-term commitments affecting primitive and wilderness values of the area.

Fire is generally considered to have a long-term positive effect on scenic quality as it ultimately adds to the diversity of the overall landscape. Short-term negative effects would result from areas blackened by fire, especially large multi-thousand-acre burns. Significant impacts can result from fire suppression activities such as fire lines cut by heavy equipment, which would expose mineral soil to erosion and permafrost degradation. The effects of prescribed burning for the wildlife habitat management program can be lessened by limiting the size and intensity of fires.

RANGES AND MEANS OF MEASURED PARAMETERS ABOVE, WITHIN, AND BELOW PLACER MINES

TABLE 3-2

LOCATION	DISSOLVED OXYGEN, p.m.m.	DISSOLVED PERCENT SATURATION	TEMPERATURE °C	pH, pH Units	SETTLEABLE SOLIDS, ml/l	TOTAL SUSPENDED SOLIDS mg/l	TURBIDITY, NTU	
	14.0	111	11	7.7	0.1	67	55	Maximum
Above	11.8	97	7	7.1	0.1	17	15	Mean
Sluice	9.8	86	3	6.0	0.1	1.1	1	Minimum
	1.0	7	2	0.5	0.0	15	16	Stan. Dev.
	13.0	106	12	8.2	240	69,400	18,800	Maximum
Below	11.2	95	8	6.8	42	17,500	7,700	Mean
Sluice	8.2	73	5	5.6	4	1,160	1,800	Minimum
	1.1	8	2	0.6	54	19,700	4,200	Stan. Dev.
	12.5	105	12	7.5	160	33,200	13,400	Maximum
Pond	10.6	92	9	6.7	28	14,700	6,700	Mean
Influent	8.5	77	5	5.7	2	2,230	1,200	Minimum
	1.1	8	2	0.6	37	9,870	3,500	Stan. Dev.
	11.9	100	12	7.8	32	25,700	8,200	Maximum
Pond	10.3	90	10	6.9	5	3,940	3,000	Mean
Effluent	7.9	75	5	5.6	0.1	410	160	Minimum
	1.1	7	2	0.6	9	6,660	2,600	Stan. Dev.
	12.2	98	12	7.6	4	6,020	6,400	Maximum
500'	10.7	92	9	6.9	1.1	1,400	1,700	Mean
Downstream	9.5	80	4	6.0	0.1	2.2	7.8	Minimum
in pond(s)	0.8	5	2	0.6	1.4	1,630	1,400	Stan. Dev.
	12.2	100	12	8.3	40	28,000	10,800	Maximum
Tailrace	10.7	91	8	7.1	10.3	7,310	4,000	Mean
w/o ponds	8.3	75	5	6.3	1.5	500	1,600	Minimum
	0.9	6	2	0.6	10.7	7,480	2,900	Stan. Dev.

Specific Impacts by Alternatives

THE PROPOSED PLAN

Recreation

The primary activity to impact recreational resources allowed by the Proposed Plan, as in other alternatives, would be mining. If mineral development increases in the North Steese during the next five to ten years, as projected, an estimated 24 miles of new trail will provide new recreational access, but will also degrade some of the primitive values of the Area. Mining activity in the South Steese would have similar effects. Impacts are not expected to greatly exceed those currently existing, as expressed in Alternative C. However, requirements for 'zero' downstream discharge from any mining into existing clear water streams to the south of Birch Creek, would help preserve water quality and fishing values in those drainages.

Wildlife

If placer mining activities increase as expected in the South Steese, a direct loss of 70 acres per year of moose winter range would result. Areas where 14 placer mines would be located are Frying Pan, Great Unknown, Harrison, Clums Fork, and Sheep creeks. Access trails for winter use would service Frying Pan/Great Unknown creeks (10 miles), Clums Fork (12 miles) and Sheep Creek (18 miles) and would directly affect approximately 132 acres of moose winter range and caribou movement routes. Exploration and staking activities would occur in most creeks, but active production would not take place other than in areas previously mentioned. Placer mining activities in the North Steese would consist of eight mines in Preacher, North Fork Preacher, Convert, Loper, and Bachelor Creeks. Approximately 40 acres per year of moose winter range would be lost as a direct result of placer mines. Access to Bachelor and Preacher Creeks would consist of approximately 18 miles of winter trail, resulting in 44 acres of disturbance in moose winter range and caribou movement routes. Total areas directly affected by placer mines and trails in the SNCA would amount to approximately 286 acres. Much of this yearly loss would be replaced by rehabilitation of disturbed areas. Replacement of willow species and other riparian vegetation could be required in a plan of operations for mining.

Lode development activities in the SNCA would consist of exploratory drilling in the South Fork of Birch Creek, Puzzle Gulch, Big Windy Creek, Convert Creek, American Creek, and Bachelor Creek areas. Impacts from low-altitude aircraft use during exploration would be slight as a result of management controls that would restrict location and timing of aircraft use over caribou and Dall sheep crucial habitats during crucial periods.

Fish

There would likely be some unavoidable adverse impacts to fishery resources from the on-site physical disturbance of the stream beds on placer claims in currently unmined tributary systems of Birch Creek. These streams include Sheep Creek, Clums Fork, Frying Pan Creek, and Great Unknown Creek as well as new claims on the heavily mined South Fork of Harrison Creek. Also, claims would be developed in the Preacher Creek drainage. Maximum development predicted would be about 5,600 feet of stream bed in the Preacher Creek drainage which encompasses most of the North Steese. Also, 9,800 feet might be mined in the upper Birch Creek drainage, of which 7,000 feet would be in the South Fork of Harrison Creek alone. Presently it is not known what the specific on-site impacts may be since fishery inventories have never been conducted on these tributary streams of Birch Creek. Potential impacts to the fishery include short- to long-term loss of spawning or rearing habitat for arctic grayling due to in-stream physical disturbance, loss or decrease in food production (aquatic invertebrates) in disturbed stream segments, and interference with fish migration or movements to seasonal-use areas.

The Harrison Creek area is already heavily mined, and it is likely that fish populations in that area have been severely impacted or eliminated. Streams which drain into Birch Creek from the south presently contain fish populations during summer months which can supply a limited amount of sport fishing opportunity. These streams include Clums Fork, Sheep Creek, the South Fork of Birch Creek and its major tributaries, and Harrington Fork. Mining claims currently exist in these areas, with some development predicted on Sheep Creek and Clums Fork as mentioned previously. These south side streams would be managed to ensure no degradation of water quality resulting from mining operations (see Water Resources section for a discussion of the water quality criteria). Downstream effects may not be noticeable. However, since mainstem Birch Creek is currently so severely impacted, any further reductions in habitat or populations would have a greater impact on an area-wide basis than if Birch Creek habitat was of good quality.

The effects of increased mining in the Preacher Creek drainage would be similar to those discussed in the Common to All Alternatives section, since streams in the North Steese would be managed with a lower intensity than the south side Birch Creek streams. A sport fishery does not exist on Preacher Creek due to poor access, but fishing potential would probably be negatively impacted.

Stipulations to mitigate impacts on fishery resources are listed in Appendix D.

Minerals

Costs to operate placer gold mining operations would increase by 10% to 100% over current levels. The increase would result from additional requirements necessary to meet water quality standards, reclaim disturbed lands, and to meet stipulations attached to Notices of Intent and plans of operation.

There would be little or no exploration by miners in closed areas. When there is no promise to develop any deposit if found, there is no incentive to explore for mineral deposit.

Growth of the placer gold mining industry would be curtailed on those clear-flowing streams on the south side of Birch Creek until new, economical techniques to meet the zero-effluent requirements are developed.

Increased conflicts between casual land users and miners would result as more people use the Area.

Water Resources

All placer mining operations in the SNCA and those outside the Area within the Birch Creek watershed would be subject to management control so that effluent discharge would not exceed the current limit of .7 milliliters per liter of settleable solids and a 25 Nephelometric Turbidity Unit increase in turbidity over natural conditions. In addition, operations on Harrington Fork, Clums Fork, Sheep Creek, and the South Fork of Birch Creek would be required to show no downstream effect on water quality. These requirements may help to improve the water quality in mainstem Birch Creek; however, there would still be a noticeable degree of turbidity from mining operations upstream from the Steese boundary. Impacts on the Preacher Creek watershed from mining will be minimal under this alternative.

Development of a lode mining operation in the area should have minimal impact on the water resources from accelerated sediments. Properly designed and placed tailing ponds and proper timing of water withdrawals would mitigate any adverse impacts which may occur. If such operations are developed, an improved road would have to be built to the site. This would reduce the impacts on upland watersheds and reduce erosion from heavy equipment traveling on unimproved trails.

Restrictions on ORV usage and management controls for cross-country travel of heavy equipment would help prevent upland watershed disturbance and erosion. Sedimentation and water quality degradation of the stream channels would not be greatly affected by ORV use. There should be little impact from fire suppression except for localized watershed disturbance and resultant erosion if heavy equipment is required. Impacts can be successfully mitigated by post-suppression rehabilitation. There would be little impact from local use of wood products.

Vegetation

The major impact on vegetation is likely to be caused by the change from full suppression of all fires to fire management based on a variety of attack levels. In the areas where some fires are permitted to burn, the gradual shift to climax communities which is now occurring would be slowed or prevented. The environmental impacts of fire management are described in greater detail in the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Area.

Opening areas to mineral location could have an impact on vegetation, if valuable mineral deposits are discovered and developed. Mining requires clearing of vegetation, but such clearings would be relatively small in relation to the entire area, even with the maximum amount of mineral development considered likely to occur. Adverse impacts can be mitigated by Surface Management Regulations and Mineral Leasing Regulations. If proper reclamation is done, there would be no irreversible commitments of resources. The construction of roads, trails, and recreation facilities would cause some destruction of vegetation. Such damage is not expected to be significant and could be mitigated by proper design and revegetation of disturbed areas.

The Proposed Plan would not lead to any significant, unavoidable, adverse impacts or irreversible commitments to vegetative resources. Long-term productivity of vegetation (especially as an element of wildlife habitat) would be improved by fire management, although there may be a small short-term loss of useable timber.

Soils

Localized soil disturbance would occur at a few sites, such as recreation facilities, access roads, or mines. Soil erosion at such sites can be prevented through proper design or site reclamation and is not expected to constitute a significant problem.

Soil disturbance from ORV use is not expected to be significant. Part of the SNCA would be closed to ORVs, and in areas open to use of light ORVs, the monitoring program would detect problems which could arise from over-use of a single area. Restrictions would then be implemented before serious damage occurred.

Air Quality

There would be no significant effects on air quality. Changes in fire management may result in more smoke during some fire seasons, and road construction, vehicle use, or mineral development may create dust over very small areas. None of these activities are likely to endanger other resources or human health.

Visual Resources

Under the proposed plan, mining in the North Steese Area would disturb approximately 40 acres per year. Some of the visual impact to this area and its associated drainages could be mitigated through strict enforcement of Surface Management Regulations. There would, however, be some loss of scenic quality principally in the following drainages: Convert Creek, Headwaters Middle Fork, North Fork of Preacher Creek, Bachelor Creek, Loper Creek and Preacher Creek. These are all currently undisturbed drainages.

Development of an estimated 24 miles of new trails in the North Steese would affect visual values by introducing new lines of disturbance uncharacteristic of the area. Most impacts on the south side of Birch Creek would be mitigated by requiring zero downstream discharge from placer mining operations. Cross-country movement of heavy equipment would be limited to winter. This would mitigate the effects such equipment can have on soil and vegetation and preclude the need for further road development.

Cultural and Paleontological Resources

Opening additional land to mining claims may have a potentially adverse impact on cultural and paleontological resources in the SNCA. Stringent application of Surface Management Regulations on mining activities may result in identification of these resources and would allow for mitigation of adverse impacts if any significant sites were located.

Such surface disturbing activities as development of access roads, trails, and recreational facilities, as well as ORV use could have direct impacts which would be dealt with on a case by case basis.

Development of access and recreational facilities can be planned to identify, avoid, or protect these resources and perhaps increase their public value through interpretation or reconstruction. Increased use may have both a direct and indirect impact. Vandalism and theft may occur, but may also enhance public awareness and evoke interest in protection of cultural and paleontological resources.

Land Status and Access

If the proposed exchanges could be accomplished, federal land ownership within the SNCA would increase by about 14,000 acres.

There would be some improvement in access, principally for recreational uses and mineral development. Permanent access would be consolidated into the proposed corridor to the extent possible. This would reduce the proliferation of rights-of-way applications for roads and other transportation requirements.

Social and Economic Conditions

The management actions which have potential for the greatest social or economic impacts are those relating to recreation and minerals. Immediate impacts would be negligible but could be important over a period of years.

Improved access and the development of some recreational facilities is likely to increase recreational use of the SNCA. This increase in use would be slight for the first few years and would make no substantial economic contribution to any communities in the area. It would be of social benefit to those people who seek the type of recreational opportunities which would be provided. If the area becomes more widely known and more popular among recreationists, use could increase enough to provide economic benefits to the region, principally to existing outfitters and suppliers in Fairbanks. There would also be some benefits to service businesses in Central and Circle Hot Springs. Some employment could be generated for guides and charter pilots working in the region.

The initial impact regarding minerals would be negative since stricter regulation of placer mining (the only type of mining which is currently taking place in the SNCA) may lead to a decrease in mining activity. However, the additional expenses imposed by stricter regulation could be offset by an increase in the price of gold or by an improvement in mining technology. Also, opening some areas to location of new claims should extend the life of the placer mining industry by making new ground available to miners if they can meet environmental requirements. If a valuable lode deposit were to be discovered and developed, it would lead to a significant increase in employment and business opportunities in Fairbanks, Central, and Circle Hot Springs.

Both increased recreational use and increased mining would have some negative social impacts, such as increased traffic on the Steese Highway and on access routes into the SNCA.

All impacts, positive and negative, would be seasonal, since most activities of the Area would occur in the summer.

Subsistence

The proposed plan has as its overall goals (1) to improve water quality in Birch Creek, (2) to treat caribou habitat as a primary land use, and (3) to manage all lands consistent with multiple use principles while maintaining environmental quality. As a result, subsistence uses should not be negatively impacted. On the contrary, more opportunities for subsistence activities should result as explained below. The management prescriptions in the resource management plan give details as to how these goals would be achieved, (see the sections on minerals, wildlife, fisheries, water resources, and subsistence).

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of the Proposed Plan relative to (1) subsistence uses and needs, (2) the availability of other lands for the purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. Overall, the proposed plan would have a positive effect on subsistence resources and would provide additional subsistence opportunities. Improvement of water quality in Birch Creek by enforcement of State and federal water pollution laws would yield two positive effects on subsistence uses: arctic grayling sport fishing would improve as water clarity improves, and water being used in Birch Creek Village would contain less sediment.

Further, the Proposed Plan stresses habitat protection and enhancement for wildlife species, particularly for caribou and moose. This would be partially accomplished by implementation of the Upper Yukon-Tanana Interagency Fire Management Plan: Yukon-Tanana Planning Unit. Also, the Alaska Department of Fish and Game has the goal of increasing the numbers of the Fortymile caribou herd to 50,000 animals. The Proposed Plan assists by providing the opportunity for the realization of this goal, thereby indirectly increasing the opportunities for subsistence users to harvest caribou.

Also, transportation corridors may be established to minimize the potential "barrier effect" on caribou movement. Surface-use restrictions may be used to avoid conflicts with caribou movements at crucial times. The small amount of subsistence trapping in the SNCA would not be greatly impacted because it is a wintertime activity which does not conflict with summertime activities such as mining and most forms of recreation.

Maintenance of environmental quality would permit the natural ecosystems to operate. Subsistence lifestyles were built around the natural systems and sustained yield principles on which the proposed plan would promote.

Access of subsistence users to harvestable resources would not be impeded by new foreseeable physical or legal barriers. Any proposed development which might include roads would be evaluated first by further environmental and subsistence (Section 810) analyses on a case by case basis. As a result, appropriate mitigative measures could be identified and adopted to provide for continued subsistence opportunities.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for all and only the public lands within the SNCA. Since this was done, there are no 'other lands' which could be considered. (Note: The various alternatives within this plan do consider different land use configurations; however, all available lands are still evaluated in all six alternatives.)

OTHER ALTERNATIVES. The six alternatives in this EIS constitute the 'other alternatives.' The differing management strategies for certain areas within the SNCA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR THE PROPOSED PLAN. There would be no significant restriction of subsistence uses under the Proposed Plan.

ALTERNATIVE A - CONTINUATION OF PRESENT MANAGEMENT

Recreation

Ninety-two percent of the area is currently classified as primitive with considerable wilderness value.

Under the alternative, increased placer mining would double the negative impacts on recreation by impairing water quality on the Birch Creek tributaries. The most significant impacts would be caused by new production on tributaries that are presently clear. The recreational float boaters depend on these clear-flowing streams for fishing, potable water, and for their visual value. Construction of access roads for mineral development in new areas would provide more public access for recreation. However, the primitive characteristics of these newly opened lands would then be permanently lost.

Wildlife

The impacts from placer mining activity would result in the direct annual loss of approximately 100 acres of moose winter range. Areas impacted would be Harrison, Frying Pan, Harrington Fork, Great Unknown, Clums Fork, Sheep, Big Windy, Bachelor, Loper, and Preacher creeks. Access roads and trails in Frying Pan and Great Unknown creeks, upgrading of the Harrison Creek trail system, winter trails into Big Windy and Sheep Creeks, and trails to Loper, Preacher and Bachelor creeks would result in an additional 116 acres of direct habitat loss. The principal habitats affected by access trails and roads in the area are moose winter range and historical movement routes of the Fortymile caribou herd. Unavoidable adverse effects from placer mining would result in direct loss of approximately 216 acres of habitat. Long-term effects of mining roads and trails would result in moderate disturbance to caribou movements.

Fish

The only significant difference to fish habitat among the alternatives is in the amount of new placer mines that would be developed as a result of the alternative selected and the intensity of management by BLM. In this alternative there would be low-intensity management, but increased mining activity on perfected mining claims within the SNCA.

Water quality would decline in Birch Creek and on the tributary streams (Preacher Creek, Harrington Fork, Clums Fork, Sheep Creek, and Big Windy). The impacts, as discussed in the general section, would be more severe and of longer duration. Sport fishing opportunities in these tributaries would be reduced. The recovery of fish habitat in Birch Creek would take longer than with the present level of mining.

Minerals

This alternative limits mineral development to valid existing rights. It is not yet clear how many claims can be legally developed, but it cannot be more than the 2,847 existing claims. Many claims would prove unprofitable and would never be developed. There could be a short-term increase in mineral production as some undeveloped claims are brought into production, but production would inevitably drop in the long run. This is an unavoidable adverse impact. Valid claims would be worked out and miners would be unable to claim new ground. There would be no production of leasable minerals since there are no existing leases. There is unlikely to be any further mineral exploration, since miners would be unwilling to explore ground which they cannot claim or lease.

If claims on the tungsten lode in the South Steese prove to have a valid existing right, a tungsten mine could be developed. However, such development appears unlikely in the near future.

Consumption of minerals can be regarded as an irreversible commitment of resources.

Water Resources

The continued development of existing placer operations in the headwaters and northern tributaries of Birch Creek would result in turbidity levels remaining at current levels. Presently the turbidity levels are more than 1,000 NTUs above natural conditions. Development of new operations (25 acres) on the currently clear-flowing tributaries of Birch Creek would result in a degradation of these waters due to sedimentation and increased turbidity. These operations could increase the turbidity levels of the impacted streams by 10 to 100 times over their natural conditions. There would be no noticeable impact to mainstem Birch Creek due to its already degraded condition.

Impacts from placer operations in the Preacher Creek watershed (20 acres) would be more noticeable since the water quality is generally not as severely impacted. Turbidity levels would increase to above the established State of Alaska water quality classification.

Access to mining operations and unrestricted use of ORVs during the summer can result in severe upland and stream channel degradation. These impacts could be mitigated by regulating cross-country travel of heavy vehicles, seasonal-use restrictions, and ORV closures. Road/trail development into the Frying Pan Creek area would result in upland watershed deterioration in some areas (less than 25 acres). Impacts could be mitigated by permitting winter access only.

No impacts from hardrock mining development are foreseen. Exploration activities would have no significant impact on water resources.

Impacts from fire management or forestry practices would be minimal. Any adverse effects could be successfully mitigated by proper rehabilitation.

Vegetation

The major impact on vegetation is likely to be caused by the change from full suppression of all fires to fire management based on a variety of options. In the areas where some fires are permitted to burn, the gradual shift to climax communities which is now occurring would be slowed or prevented. The environmental impacts of fire management are described in greater detail in the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Area.

Continuation of existing placer mining and the construction of roads, trails, and recreation facilities would all cause some localized destruction of vegetation. Under this alternative, such damage is expected to be extensive, and could be mitigated by project design and revegetation.

This alternative would not lead to any significant, unavoidable, adverse impacts or irreversible commitments of vegetation. Long-term productivity of vegetation (especially as an element of wildlife habitat) would be improved by fire management, although there may be a small short-term loss of usable timber.

Visual Resources

Mining is the major activity which has affected and would continue to affect visual resources. Dirty water and other visual intrusions caused by mining can be partially mitigated through visual analysis and design, reclamation, and other measures, but there would be some unavoidable adverse impacts, particularly on clear-running streams. These impacts would be limited to existing claims under this alternative. Some impacts would be short-term impacts which can be alleviated by reclamation, while others would be long-term and may even become irreversible commitments of resources.

Any other surface-disturbing activities, including use of off-road vehicles, may also reduce visual resource quality. These impacts are not likely to be as extensive as the impacts of mining.

Cultural and Paleontological Resources

Without further inventory to determine the location and significance of these resources, any surface-disturbing activity has some potential to cause impact. Existing mining operations, the development of access roads, trails, recreational facilities, and ORV use are examples of surface-disturbing activities. Some adverse impacts can be mitigated as

a result of case by case examinations prior to surface disturbance. Any destruction of these resources is an irreversible commitment of non-renewable resources.

Social and Economic Conditions

This alternative has no short-term social or economic effects. The long-term effects are mostly negative. With no new ground available, the mining industry would eventually decline. Adjacent State lands may remain open to mining, but the area is much smaller. The Central/Circle Hot Springs area would be affected most severely, although the impact would be felt in Fairbanks as well. The decline of the industry could lead to population loss in Central/Circle Hot Springs.

Recreational use of the area might make up part of the economic loss, but recreational use is not expected to increase significantly under this alternative. Development of a tungsten mine would provide a tremendous economic boost to the area, but this now seems unlikely, since the lode claims have been allowed to expire and could not be restaked under this alternative.

A decline in mining would be viewed as a positive impact by some recreationists and by people who favor preservation of wild areas.

Support Needs

Implementation of this alternative would not require a significant increase in BLM personnel or funding.

Subsistence

This is the "no action" alternative which means the continuation of present levels of resource management. All lands would remain closed to location of new mining claims and mineral leasing. BLM would respond to requests for permits for actions but would not initiate actions. The present trends in wildlife habitat and numbers would be expected to continue. Access to the area would remain about the same.

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of Alternative A regarding (1) subsistence uses and needs, (2) the availability of other lands for the specific purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. Alternative A would have no effect on subsistence uses and resources since there would be little or no change from the existing situation. The turbidity of Birch Creek can be expected to continue at approximately the same level until some future time when the present valid mining claims are worked out. Thus, present levels of net fishing should continue. The small amount of subsistence trapping in the SNCA should not be greatly impacted as it is a wintertime activity which does not conflict with summertime activities such as mining. Caribou

populations are increasing and can be expected to continue with impacts expected to remain low. Access roads would continue to be limited in number and condition. Consequently, no limitation on the access of subsistence users to harvestable resources is predicted. Any proposed developments which might include roads would first be evaluated by further environmental and Section 810 analyses on a case by case basis.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for all and only the public lands within the SNCA. Since this was done in the Proposed Plan, there are no 'other lands' which could be considered. (Note: The various alternatives within this plan do consider different land use configurations, however, all available lands are still evaluated in all six alternatives.)

OTHER ALTERNATIVES. The six alternatives in this EIS constitute the 'other alternatives.' The differing management strategies for certain areas within the SNCA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR ALTERNATIVE A. There would be no significant restriction of subsistence uses under Alternative A.

ALTERNATIVE B: MANAGEMENT EMPHASIS ON RESOURCE PROTECTION

Recreation

Impacts to recreation resources would generally be due to increased degradation of water quality, noise, and visual intrusions caused by mining operations. Some of these impacts can be mitigated through enforcement of existing Surface Management Regulations. A moderate (15 to 20 percent) increase in recreational use within the SNCA can be expected through this alternative.

Wildlife

Impacts from placer mining activities would be similar to those of Alternative A. Unavoidable adverse effects would result in direct loss of approximately 210 acres of habitat. Principal habitats impacted would be moose winter range and caribou movement routes. The long-term effects of mining roads and trails on caribou movements would be low because of implementation of management controls. Use of roads and trails would be restricted to non-crucial time periods to minimize disruption to caribou in the area. This management control, coupled with consolidation of roads and trails into access corridors, would minimize long-term cumulative effects on caribou movements.

Fish

As stated earlier, some impacts from placer mining are unavoidable but many can be mitigated or minimized through intensive management. The amount of land disturbed by placer mining would be similar to Alternative A, but a greater emphasis would be placed on implementation of a surface mining regulatory program with attempts to minimize impacts to fish habitat within the new mining areas and to lessen impacts on Birch Creek. Recovery of fish habitat to pre-mining conditions could be accomplished fairly quickly in Birch Creek and its tributaries. Productivity of fish populations may be enhanced in the long term as compared to Alternative A. Additional surface mining stipulations and reclamation would be required. Mitigating measures for actions potentially impacting fisheries habitat are included as Appendix D.

Minerals

This alternative guarantees that all properly located and maintained claims can be retained and developed, including those claims which do not meet the proof-of-discovery requirement of PL 96-487. However, new lands would not be opened to location of claims, so the total number of claims which can be legally developed still could not exceed the currently recorded 2,847 claims. All other conditions would be the same as in Alternative A. Therefore, the effects of this alternative are the same as those of Alternative A.

Water Resources

Impacts on the water resources from mining would be the same as those listed in Alternative A. There would continue to be riparian and stream channel degradation and poor water quality in Birch Creek. If mining operations commence on tributaries of Birch Creek that presently have undeveloped claims, the quality of water in those streams would be degraded. For example, the Preacher Creek watershed would be impacted by the 20 acres of disturbance anticipated in those stream channels.

The impact from permanent access and summer ORV use would be minimal since this alternative plan would enforce a high level of control. If degradation in localized areas occurs from light (less than 1,500 GVW) vehicles, that area could be closed to ORV use. Any impacts from fire management or forest product use would be mitigated by seasonal restrictions and rehabilitation.

Vegetation, Soils, and Air Quality

Impacts described under Alternative A would be unchanged except that the use of prescribed fire would allow a greater degree of control over fire-caused changes to plant communities. Also, inventory work and the designation of the Mount Prindle Research Natural Area would provide a higher degree of protection for rare and sensitive plant communities.

Because of limitations on off-road vehicles, soil disturbance would be even less than under Alternative A. Overall impacts on soils are not expected to be significant. There would be no significant effects on air quality. However, changes in fire management may result in more smoke during some fire seasons.

Visual Resources

Mining is one of the major activities which has affected and would continue to affect visual resources. Muddy water and other visual intrusions caused by mining can be partially mitigated through visual analysis and design, reclamation, and other surface management measures, but there would be some unavoidable adverse impacts. While these impacts will be limited to existing claims under this alternative, many perfected claims on undisturbed streams would begin development within the next five to ten years. Visual impacts on the relatively undisturbed tributaries of Birch Creek would be the most significant intrusions in the SNCA.

Drainages where this is likely to occur are Clums Fork, Big Windy, Sheep, Harrington Fork, Great Unknown, Loper, and Preacher Creeks. Off-road vehicles would also impact scenic quality by causing new lines uncharacteristic to the landscape. Access to the claims located on the south side of Birch Creek will necessitate moving equipment through and across the river corridor. While these moves would normally be completed during the winter months, some evidence of these moves would be discernible to recreationists floating Birch Creek.

Cultural and Paleontological Resources

Deliberate theft or destruction of cultural resources is unlikely due to the low visibility of most sites. However, without further inventory to determine the location and significance of cultural resources, any surface-disturbing activity has the potential to damage such resources. Negative impacts can be mitigated on case-by-case site examinations. Any destruction of cultural resources is an irreversible commitment of resources.

Land Status and Access

If the proposed exchanges could be accomplished, federal land ownership within the SNCA would be increased by about 14,000 acres and federal ownership of adjacent lands would increase by about 59,000 acres. Access will be improved slightly as new roads and trails are constructed. Improved design and more careful supervision of construction would result in better quality roads and trails.

Social and Economic Conditions

This alternative would have no short-term social or economic effects. The long-term effects would be mostly negative. With no new ground available, the mining industry would eventually decline. Adjacent State

lands may remain open to mining, but the area would be much smaller. The Central/Circle Hot Springs area would be affected most severely, although the impact would be felt in Fairbanks as well. The decline of the industry could lead to population loss in Central/Circle Hot Springs.

Recreational use of the area might compensate for part of the economic loss, but recreational use would not be expected to increase significantly under this alternative. Also, development of a tungsten mine would provide a tremendous economic boost to the area, but this now seems unlikely.

A decline in mining would be viewed as a positive impact by some recreationists and by people who favor preservation of wild areas.

Support Needs

Implementation of this alternative would require increased commitments of resources in the recreation, minerals, and wildlife programs. Temporary summer employees would be needed in recreation to provide visitor services, and funds would be needed for construction of facilities. The minerals program would need increased funding for enforcement of the Surface Management Regulations, and wildlife would require funds for planning and execution of habitat improvement projects and necessary inventories.

Subsistence

This alternative stresses management actions to maintain or enhance natural processes and environmental quality. Non-motorized recreation would be emphasized, and facilities to protect the resources deemed valuable for recreation may be provided. Wildlife habitat would be managed to achieve the Alaska Department of Fish and Game goals for increased wildlife numbers. A water monitoring program designed to help improve the water quality of Birch Creek would be accelerated.

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of Alternative B regarding (1) subsistence uses and needs, (2) the availability of other lands for the purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. Overall, Alternative B would have a positive impact on subsistence resources as it would help provide certain additional subsistence resources and thereby increase subsistence opportunities. In particular, the improved water clarity downstream toward Birch Creek Village would increase chances of successful sport fishing for arctic grayling while reducing the amount of sediment in the water being used in Birch Creek Village. The numbers of caribou within the SNCA would probably increase. Levels of subsistence trapping would probably remain unchanged.

Furthermore, the emphasis on non-motorized recreation and more wildlife would lessen competition in the hunting of subsistence resources. No limitation on the access of subsistence users is expected. Any proposed change which BLM would have discretion to authorize would be evaluated first by further environmental and Section 810 analyses on a case by case basis.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for all and only the public lands within the SNCA. Since this was done, there are no 'other lands' which could be considered.

(Note: The various alternatives within this plan do consider different land use configurations; however, all available lands are still evaluated in all six alternatives.)

OTHER ALTERNATIVES. The six alternatives in this EIS constitute the 'other alternatives.' The differing management strategies for certain areas within the SNCA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR ALTERNATIVE B. There would be no significant restriction of subsistence uses under Alternative B.

ALTERNATIVE C: MANAGEMENT EMPHASIS ON MIXED USE OF RESOURCES

Recreation

With the recent withdrawal of major lode development companies from the area, a significant increase in access development during the life expectancy of this plan is not anticipated. Therefore, impacts to recreation would be similar to those listed in previous alternatives. They include degradation of water quality, noise, and visual intrusion. Improved access, while decreasing primitive recreational values, would allow more public use of recreational opportunities in the area. Recreational use can be expected to increase by approximately five to ten percent per year.

Wildlife

Placer mining activities in Harrison, Frying Pan, Harrington Fork, Great Unknown, Clums Fork, Sheep, and Big Windy creeks of the South Steese would continue at levels described in Alternative B. Principal habitats impacted from placer mining and access disturbance are moose winter range and caribou movement routes. Maximum habitat lost as a direct result of 40 miles of roads and trails and 16 active mines in the South Steese would be approximately 152 acres. New disturbance from placer mining, exploration, and road development in the North Steese would occur on Bachelor, Loper, Convert, North Fork Preacher, and Middle Fork Preacher creeks. Development of 24 miles of roads and trails with eight active mines would result in approximately 84 total acres of habitat lost as a direct result of placer mining activity. Total habitat disturbed in the

SNCA would be approximately 236 acres. Principal habitats impacted would be moose winter range and caribou movements. Long-term unavoidable effects on caribou movements caused by roads and trails would be low to moderate due to consolidation of trails into access corridors and restrictions on road and trail use during caribou movement periods.

Fish

Fish habitat protection and management would be intensified as in Alternative B; however, there would be an increase in mining activity on bench areas above the streams in the South Steese and on Preacher Creek and tributaries in the North Steese. There would be additional impacts over and above the impacts in Alternative B in the South Steese/Upper Birch Creek area, but an increase in mining activity in the North Steese area would cause greater impacts on Preacher Creek. Increased levels of management would benefit fish habitat, as explained in Alternative B. These benefits may be offset, particularly in the Preacher Creek watershed, when new mines are opened in the area. Unavoidable, adverse impacts would be in-stream alteration of habitat and increased levels of turbidity and sedimentation to downstream areas.

Minerals

Although this alternative opens new areas to location of mining claims and to mineral leasing, it is difficult to estimate what effect this would have on mineral production. Much of the area that would be opened has little known mineral potential. However, some areas with placer gold potential would be opened, and further exploration may result in the discovery of other workable mineral deposits. The life span of the gold placer mining industry in the area would be extended by this alternative and a new lode mineral industry might develop. The greatest potential is for hardrock mineral production. The potential for oil and gas, coal, and geothermal is generally low in the areas being opened.

The imposition of special stipulations to protect wildlife within the Special Management Areas would increase the cost of mineral development in those areas. It is possible that these costs would be enough to prevent or slow development of marginal deposits.

Opening lands to location and leasing would encourage prospectors to explore those areas. Considerable exploration for hardrock minerals can be expected. There would be a less intensive search for oil and gas and other leasable minerals.

Water Resources

Expansion of placer exploration in the area would have little effect on the water resources. Most effects from exploration would be short-term increases in stream turbidity and small-scale ground disturbance. Continuing operation of existing mines and development of the tributaries of Birch Creek that presently have undeveloped claims, would result in

siltation of currently clear streams and increased turbidity in Birch Creek. The development of 40 acres of placer mines in the Preacher Creek watershed would result in turbidity levels downstream far exceeding the State of Alaska water classification. Impacts from access to mining claims could be significant due to uncontrolled cross-country travel in semi-primitive areas. Impacts would include upland watershed deterioration, erosion, and stream channel disturbance.

Unrestricted use of light ORVs during the summer could result in localized watershed and stream channel damage in areas where use is heavy. Mitigation can be accomplished through closure and seasonal-use restrictions. Impacts from fire management would be minimal and could be mitigated by proper fireline construction and rehabilitation.

If timber harvest activities take place on a large scale, impacts can be significant. Erosion from logging operations, surface disturbance and access could result in stream siltation and increased turbidity. Most of these impacts can be mitigated by proper road design, location of operations, logging techniques, and seasonal-use restrictions.

Vegetation, Soils, and Air Quality

VEGETATION. Impacts of fire management would be the same as those described in Alternative A, except that the use of prescribed fire would allow a greater degree of management control over those impacts.

Opening large areas in the North Steese to location of new mining claims could have an impact on vegetation if valuable mineral deposits are discovered and exploited. Mining requires clearing of vegetation, but such clearings would be relatively small in relation to the entire area, even with the maximum amount of mineral development considered likely. Adverse impacts could be mitigated by use of Surface Management Regulations. With proper reclamation, there would be no irreversible commitments of resources.

Inventories would make it possible to identify and protect rare and sensitive plant habitats; but, because of fewer restrictions on off-road vehicles, there is a slightly greater risk to such plants under this alternative than under Alternative A.

SOILS. Fewer restrictions to off-road vehicle use and the possibility of increased mining means that the risk of soil disturbance and erosion would be higher under this alternative than under Alternatives A or B. Negative impacts could be mitigated through use of Surface Management Regulations, construction of properly designed roads and trails, and reclamation of disturbed sites.

AIR QUALITY. There would be no significant effects on air quality. Changes in fire management may result in more smoke during some fire seasons.

Visual Resources

The visual impacts under this alternative would be similar to those listed under Alternative A. Mining and its associated resource uses, i.e. ORV use and road and trail development, would continue to cause the major visual intrusions in the area. Enforcement of the Surface Management Regulations would mitigate some of the problems.

Few unavoidable adverse effects or irreversible commitments of resources are expected.

Cultural and Paleontological Resources

Since this alternative allows for an increase in various activities, potential impacts to cultural and paleontological resources would be greater. Impacts under this alternative would result primarily from increased mining activity. Other effects have been described under the Proposed Plan and Alternative B.

Land Status and Access

If the proposed exchanges can be accomplished, federal land ownership within the SNCA would be increased by about 14,000 acres, and federal ownership of adjacent lands would increase by about 59,000 acres.

Summer access would be improved significantly if substantial mineral development takes place. Winter access would likely remain difficult, although roads can be used as snowmachine trails in the winter.

Social and Economic Conditions

This alternative would improve the long-term outlook for the mineral industry in the area. This would have a positive impact on the local economy. Increased recreational use would also contribute to the economy. However, an increase in the number of visitors may lead to conflicts between recreationists and miners. Some miners would object to recreational use of roads and trails which they have constructed.

Improved access and development of recreational facilities would be beneficial to motorists, hunters, and other recreationists who use vehicles and/or facilities. Opportunities would be reduced for those who favor a primitive recreational setting.

Opportunities for subsistence use of resources outside of the SNCA would be unaffected by this alternative. Within the SNCA, improved access would increase opportunities for subsistence use but may also increase competition from sport hunters. Subsistence use would not be significantly restricted by any actions in this alternative. Some subsistence resources would benefit from habitat improvement and intensive management.

Support Needs

This alternative would require at least the same level of support as Alternative B. In addition, funding needs would increase for construction of recreational facilities, since more are proposed under this alternative. Also, if mineral development increases, greater funding would be necessary for enforcement of the Surface Management Regulations and maintenance of wildlife values in the Special Management Areas.

Monitoring and mitigation of increasing placer mine development that would be expected as more land is opened, would be intensified in this alternative. More recreational development would increase the number of visitors and new areas would be available for recreational use over roads developed for mining access. Special management areas for wildlife would receive priority in monitoring, mitigation, and habitat improvement actions. No lode deposits are expected to be developed.

Subsistence

In the South Steese, this alternative would close to new mineral entry, important caribou calving and movement routes south of Birch Creek. Monitoring and mitigative measures placed on placer mining would be expected to improve the present water quality in Birch Creek. The increased numbers of recreational visitors would be dispersed over a wider area and cause less concentrated impact on the physical resources in a given area.

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of Alternative C regarding (1) subsistence uses and needs, (2) the availability of other lands for the purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. Overall, Alternative C would have little effect on subsistence resources, since important caribou calving and movement routes would be closed to new mineral entry. Also, water quality in Birch Creek may improve. Proposed new access roads in certain locations would receive additional environmental and Section 810 analyses which would identify appropriate construction designs and other mitigative measures so they would neither impact caribou nor limit the access of subsistence users to harvestable resources. Such roads could facilitate subsistence activities.

The small amount of subsistence trapping in the SNCA should not be greatly impacted as it is a wintertime activity and does not conflict with summertime activities such as mining.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for all and only the public lands within the SNCA. In following this mandate, there are no 'other lands' which could be considered.

(Note: The various alternatives within this plan do consider different land use configurations; however, all available lands are still evaluated in all six alternatives.)

OTHER ALTERNATIVES. The six alternatives in this EIS constitute the 'other alternatives.' The differing management strategies for certain areas within the SNCA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR ALTERNATIVE C. There would be no significant restriction of subsistence uses under Alternative C.

ALTERNATIVE D - MANAGEMENT EMPHASIS ON ECONOMIC DEVELOPMENT

Recreation

Under Alternative D, the most significant impact to recreation will come from increased access and mineral development. Mineral development would expand into the South Fork of Birch Creek, Sheep Creek, Clums Fork, and Yukon Fork. These are generally clear-flowing tributaries of Birch Creek and provide needed recreational and clear water opportunities to float boaters on Birch Creek. The recreational value of these clear-flowing streams include fishing, potable water, and visual resources. Because of heavy mining pressure on other tributaries of Birch Creek, the value of those remaining clear-flowing streams is very significant. Any degradation of the quality of water in these streams would have a significant, negative impact on recreation.

Wildlife

Placer mining activities in the South Steese would be expanded over those described in Alternative C by seven additional mines in Volcano Creek, Sheep Creek, Clums Fork, South Fork, and the Yukon Fork of South Fork. Trails that access mining areas in the South Steese (30 miles) would be upgraded to all-season road standards under this alternative. Placer mining activities in the North Steese would be similar to those of Alternative C (eight active mines, 24 miles road and trail). Total habitat lost as a direct result of placer mining in the SNCA would be approximately 326 acres. Principal habitats impacted would be moose winter range and caribou movement routes. Raptor nesting and prey gathering habitat along the South Fork of Birch Creek could also be directly affected, depending on specific road location. All-weather roads in these areas would facilitate greater mineral exploration and development and over the long term, would result in moderate, long term,

unavoidable effects to caribou, Dall sheep, grizzly bear, and raptor use areas. Lode development activities would consist of exploration in the Puzzle Gulch and Big Windy Creek areas. Unavoidable short-term effects from use of low-level aircraft during exploratory drilling operations would be minimal due to restriction of timing and location in crucial caribou and Dall sheep habitats.

Fish

The impacts to fishery resources of Alternative D will be essentially the same as stated for Alternative C except that additional surface disturbance in the South Fork of Birch Creek and the Yukon Fork areas may increase stream turbidities on the remaining major clear water tributary of Birch Creek. The diluting effect of the South Fork of Birch Creek on the mainstem Birch Creek is substantial. Unless closed-water recirculating systems were used, Birch Creek would receive greater impacts, and sport fishing opportunities in the South Fork of Birch Creek would be lost. A need to provide year-round access into the area could increase demand for road construction materials in stream/riparian areas.

Minerals

This alternative provides the best opportunity for continuation and growth of mineral production in the SNCA. Most of the area, including a portion of the South Steese with identified high mineral potential, would be open to mineral development. The likelihood of hardrock mineral production is substantially greater than under Alternatives A, B, or C. Some of the area being opened has geothermal potential. The potential for coal, oil, or gas production remains low. The impacts of Special Management Areas on wildlife are the same as those described under Alternative C. Mineral exploration can be expected to increase significantly. Any increase in mineral production would be an increase in the irreversible commitment of those resources.

Water Resources

An increase of 35 acres being mined in the South Fork, Sheep Creek and Clums Fork drainages will severely impact the water quality of these streams. Turbidity levels would be increased to beyond State of Alaska water quality standards. This would have a substantial effect on the remaining clear-water streams in the Birch Creek watershed. The impact on mainstem Birch Creek would not be very noticeable due to the present high turbidity levels. Continuation of mining operations in the headwaters and in Harrison Fork would keep the turbidity levels in Birch Creek high.

All-season access to new mining operations, on the tributaries of Birch Creek that presently have undeveloped claims, would result in upland watershed deterioration and associated erosion along with degradation of

stream channels and riparian areas at stream crossings. Encouragement of motorized access in most areas may result in damage to upland, riparian and in-stream water resources. Erosion from surface disturbance can result in stream siltation and increased turbidity.

Unrestricted use of light ORVs during summer can result in localized impact to watershed and stream channel areas where use is heavy. Mitigation can be accomplished through closure and seasonal-use restrictions. Impacts from fire management would be minimal and could be mitigated by proper fireline construction and rehabilitation. If timber harvest activities take place on a large scale, impacts can be significant. Erosion from logging operations, surface disturbance and access could result in stream siltation and increased turbidity. Most of these impacts can be mitigated by proper road design, location of operations, logging techniques, and seasonal-use restrictions.

Vegetation, Soils, and Air Quality

Vegetation impacts would be similar to those described under Alternative C. The likelihood of negative impacts from mining would be increased, since a larger area will be opened to mining. Impacts on soils would be similar to those described under Alternative C. Increased recreational use and mineral development would increase the possibility of adverse effects. There would be no significant effects on air quality. Changes in fire management may result in more smoke during some fire seasons.

Visual Resources

Visual impacts of this alternative to the visual resources would be the most severe. Most of the area would be opened to the filing of new mining claims with expanded placer mining and its associated access needs in the South Fork of Birch Creek drainage. Visual impacts to an area that is presently undisturbed will be very significant. Similar impacts would be found on Yukon Fork, Sheep Creek, and Clums Fork. While the new access to these areas would provide public access for recreation, it would also impact scenic resources by introducing new lines uncharacteristic to the landscape. Primitive values would be significantly impaired. Scenic quality in these areas would be degraded from Class B scenic quality to Class C.

Cultural and Paleontological Resources

Since this alternative allows for the greatest increase in various activities, the impact on these cultural and paleontological resources is even greater. Site-specific Class III Inventories would increase proportionately to the amount of development allowed.

Land Status and Access

If the proposed exchanges can be accomplished, federal land ownership within the SNCA will be increased by about 14,000 acres and federal ownership of adjacent lands would increase by about 59,000 acres. Access needs would increase significantly because of the amount of potential development allowed in this alternative.

Social and Economic Conditions

This alternative would provide the best opportunity for maintaining or improving the local economy through increased mineral and recreational development activity. The impacts of improved access, development of recreational facilities, and an increase in the number of visitors would be the same as those described under Alternative C.

Support Needs

This alternative would require a higher level of support than Alternatives A, B, or C. This alternative projects the highest level of recreational development and, therefore, would require the most construction and the highest level of visitor services. This alternative also has a high potential for increased mineral development, which would increase the workload in enforcement of Surface Management Regulations, maintenance of wildlife values in the Special Management Areas, and the protection of any other resources which may be put at risk.

This alternative encourages human use of the SNCA by opening 94 percent of the area to both semi-primitive motorized actions and the location of new claims. Intensive monitoring would be conducted on these new activities, checking for compliance with mitigative measures required under leases, permits, and the Surface Management Regulations. Management in the Special Management Area would focus on protection of wildlife habitat in the crucial areas of the caribou range. No lode development is expected during the life of this plan.

Subsistence

The Fortymile caribou herd would be expected to maintain its present population. Downstream turbidity in the Birch Creek Village area would probably remain at present levels. Access to the SNCA from the Steese Highway would be improved and would increase in number of miles, making more country accessible to both subsistence and sport hunters.

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of Alternative D regarding (1) subsistence uses and needs, (2) the availability of other lands for the purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. Overall, Alternative D would have little effect on utilized subsistence resources because caribou and fish are expected to remain at present population levels. The water at Birch Creek Village would remain at approximately the present level of turbidity, maintaining the present poor sport fishing and water quality of Birch Creek.

No significant reduction in the availability of any resources utilized for subsistence purposes is expected due to major alterations in habitat, distribution, migration, or location. This includes subsistence trapping, which is a wintertime activity and does not conflict with summertime activities such as mining.

Certain new access routes could actually facilitate subsistence use of the Area. If increased competition from non-rural harvesters were to occur, the State of Alaska has the management prerogative to institute new fish and game regulations to provide subsistence users in the area with a harvest priority.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for all and only the public lands within the SNCA. In following this mandate, there are no 'other lands' which would be considered.

(Note: The various alternatives within this plan do consider different land use configurations; however, all available lands are still evaluated in all six alternatives.)

OTHER ALTERNATIVES. The six alternatives in the Environmental Impact Statement constitute the 'other alternatives.' The differing management strategies for certain areas within the SNCA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR ALTERNATIVE D. There would be no significant restriction of subsistence uses under Alternative D.

ALTERNATIVE E

Alternative E was presented in the draft EIS as the preferred alternative. It is summarized here for tracking purposes only. The effects on mineral development would be 30 percent less than those in Alternative D. However, most impacts could be mitigated through the measures included in this alternative and could be outweighed by the positive impacts of mineral development on the economy and on access for recreation or other activities. To insure protection of wildlife values, the Special Management Area for wildlife was greatly enlarged from that shown in Alternative D. Also, oil and gas leasing would not be allowed in the proposed Limited Mineral Development Zone.

The impacts of Alternative E would be similar to those described in Alternative D for all resources except wildlife habitat. The extension of the Special Management Area in the North Steese to include historical caribou range would provide a stronger management tool for mitigation of adverse effects. However, it would increase the cost of operations for miners in that area.

Recreation

Alternative E is a modification of Alternative C. Recreation development would be at the same level as under Alternative C. However, somewhat more land would be opened to motorized recreation and to the use of off-road vehicles. Recreational development would be less extensive than under Alternative D but more extensive than under the Proposed Plan. The impact from mining would not exceed that noted under Alternative D.

Wildlife

Placer mining activities in the South Steese would be the same as those described in Alternative D. Areas where placer mines would be located in the South Steese are Volcano Creek, Sheep Creek, Clums Fork, South Fork, and the Yukon Fork of the South Fork. Trails that access mining areas in the South Steese (30 miles) would be upgraded to the all-season road standard in this alternative. Placer mining activities in the North Steese would also be similar to that of Alternative D (eight active mines, 24 miles of road and trail). Total habitat lost as a direct result of placer mining in the SNCA would be approximately 326 acres. Principal habitats impacted would be moose winter range and caribou movement routes. Raptor nesting and prey gathering habitat along the South Fork of Birch Creek could also be directly affected, depending on specific road location. All-weather roads in these areas would facilitate greater mineral exploration and development and, over the long term, would result in moderate, long term, unavoidable effects to caribou, Dall sheep, grizzly bear, and raptor use areas. Lode development activities would consist of exploration in the Puzzle Gulch and Big Windy Creek areas. Unavoidable short-term effects of the use of low-level aircraft during exploratory drilling operations would be minimal due to location and timing restriction in crucial caribou and Dall sheep habitats.

Fish

The impacts to fishery resources from selecting this alternative would be about the same as for Alternative D. The increased amount of placer mining which is anticipated would offset the improvements gained through increased environmental monitoring. Fishery resources and fishing opportunity would probably decline with this alternative, particularly in the Preacher Creek watershed. Adverse impacts are those associated with in-stream alterations and disturbance, increased turbidity levels downstream, and the other impacts discussed in the general section. Mitigating measures include seasonal restrictions on in-stream work to avoid blocks to fish migration, limitations on turbidity discharges to minimize downstream impacts, and reclamation of disturbed sites to shorten the period of unavoidable adverse impacts associated with water runoff from disturbed sites.

Minerals

Impacts would be similar to Alternative D, but stronger regulatory enforcement would mitigate some of the environmental impacts.

Water Resources

Impacts on water resources from this alternative should be the same as those discussed in Alternative D. An increase of 35 acres being mined in the South Fork, Sheep Creek, and Clums Fork drainages will severely impact the water quality of these streams. Turbidity levels would be increased above State of Alaska water quality standards. This would present a very significant effect on the remaining clear water streams in the Birch Creek watershed. The impact on mainstem Birch Creek would not be very noticeable due to the present high turbidity levels. Continuation of mining operations in the headwaters and in Harrison Fork will keep the turbidity levels in Birch Creek high.

In the tributaries of Birch Creek, all-season access to mining operations which have presently undeveloped claims, would result in upland watershed deterioration and associated erosion along with degradation of stream channels and riparian areas of stream crossings. Encouragement of motorized access in most areas may result in damage to upland, riparian, and in-stream water resources. Erosion from surface disturbance can result in stream siltation and increased turbidity.

Unrestricted use of light ORVs during summer can result in localized degradation of watershed and stream channel areas where use is heavy. Mitigation can be accomplished through closure and seasonal-use restrictions. Impacts from fire management will be minimal and could be mitigated by proper fireline construction and rehabilitation. If timber harvest activities take place on a large scale, impacts can be significant. Erosion from logging operations, surface disturbance and access could result in stream siltation and increased turbidity. Most of these impacts can be mitigated by proper road design, location of operations, logging techniques, and seasonal-use restrictions.

For further discussion of Alternative E, refer to the Draft RMP/EIS. (Note: Under Alternative E, Soils, Air Quality, Cultural Resources, Land Status, Vegetation, Social and Economic Conditions, and Access are the same as for Alternative C. Visual Resources and Support Needs are the same as for Alternative D.)

Subsistence

In this alternative, 94 percent of the area would be managed to allow motorized recreation and location of new mining claims. A Special Management Area to encompass the crucial habitat for caribou would be managed to maintain caribou at present or greater levels. Preservation

of the crucial grayling habitat of presently undisturbed Birch Creek tributaries would have priority in monitoring and ensuring compliance with 43 CFR 3809 regulations. Additional roads would provide access to new areas for subsistence and other uses.

COMPLIANCE WITH SECTION 810 OF ANILCA. The following is an evaluation of Alternative E regarding (1) subsistence uses and needs, (2) the availability of other lands for the purposes sought to be achieved, and (3) other alternatives which would reduce or eliminate the proposed action from lands needed for subsistence purposes.

USES AND NEEDS. Overall, Alternative E would have little effect on utilized subsistence resources because caribou and fish are expected to remain within present population levels. Adoption of the Special Management Area concept could aid in the general increase predicted for the Fortymile caribou herd.

The water at Birch Creek Village would remain at approximately the present level of turbidity, continuing the presently poor sport fishing and water quality of Birch Creek. Possible new turbidity in the Birch Creek watershed would not further impact subsistence fishing, which already takes place in turbid water.

No significant reduction in the availability of any resource used for subsistence purposes, due to major alterations in habitat, distribution, migration, or location, is expected. This includes subsistence trapping, which is a wintertime activity that does not conflict with summertime activities such as mining. Certain new access routes could actually facilitate subsistence use of the area. If increased competition from non-local harvesters were to occur, the State of Alaska has the wildlife management prerogative to institute new fish and game regulations to provide area subsistence users with a harvest priority.

AVAILABILITY OF OTHER LANDS. BLM was mandated by Congress to plan for all and only the public lands within the SNCA. In following this mandate, there are no 'other lands' which would be considered.

(Note: The various alternatives within this plan do consider different land use configurations; however, all available lands are still evaluated in all six alternatives.)

OTHER ALTERNATIVES. The six alternatives in the Environmental Impact Statement constitute the 'other alternatives.' The differing management strategies for certain areas within the SNCA are indicated elsewhere in this document along with the probable effects on wildlife, habitat, and access which relate to subsistence uses and needs. (Note: Information on lands used for subsistence purposes is found in Chapter II.)

SECTION 810(a) FINDING FOR ALTERNATIVE E. There would be no significant restriction of subsistence uses under Alternative E.

Summary of the Section 810(a) Findings for this Environmental Impact Statement

The six alternatives of this EIS have been evaluated for effect on subsistence uses and needs.

There are three factors which have the potential to affect subsistence uses and needs. (1) water quality, (2) impacts to caribou, and (3) effects of new access routes.

WATER QUALITY

For the last five to seven years, turbidity in Birch Creek has been negatively affecting the quality of drinking water in Birch Creek Village and interfering with sport fishing for arctic grayling.

Alternatives A, D and E predict no improvement in water quality for Birch Creek. All alternatives seek to protect the water quality and grayling spawning and rearing habitat in the present clear-water tributaries of Birch Creek.

Alternatives B and C and the Proposed Plan predict improvement in the water quality of Birch Creek and predict that there would be less turbidity within the next five to ten years. There would be an improvement in the use of this subsistence resource.

IMPACTS TO CARIBOU

While open-pit mining of the tungsten claim block in the South SNCA and the associated roads, millsite, and activity has the potential to interfere with the migration of the Fortymile herd and could preclude use of the herd's calving area in the South Steese, none of the alternatives predict development of the tungsten lode in the next five to ten years. Exploration activity in this area has stopped for several reasons, one of which is the depressed world market.

Alternatives D and E predict the caribou population would remain near present population levels. Alternatives A, B, C and the Proposed Plan predict increases in caribou populations which could bring a return of caribou crossing to the North Steese in adequate numbers to dramatically increase subsistence-use opportunities.

EFFECTS OF POTENTIAL NEW ACCESS ROUTES

None of the alternatives predict any significant restriction of subsistence-user access to locations or resources associated with subsistence activities including hunting, fishing, trapping, and gathering of wood, berries, and other wild products. New roads could potentially facilitate access of subsistence harvesters to resources. If

increased competition from non-rural harvesters were to occur, particularly under Alternatives D and E, the State of Alaska has the wildlife management prerogative to institute new fish and game regulations to provide area subsistence users with a harvest priority.

For these reasons, this evaluation concludes that there would not be a significant restriction on subsistence uses under any of the six alternatives.

UNAVOIDABLE ADVERSE IMPACTS

This section identifies adverse impacts on land uses and components of the human environment resulting from the prescribed management actions in the Proposed Plan. These are actually residual impacts that would remain after mitigation.

UNAVOIDABLE ADVERSE IMPACTS
STEESE NATIONAL CONSERVATION AREA
RESOURCE MANAGEMENT PLAN

Table 3-3

Proposed Plan Element	Unavoidable Adverse Impacts
Recreation	Some degradation in quality of recreation due to recreation and mining and reduction in opportunities for primitive recreation. ORV use would enhance opportunities for recreation but reduce quality of non-motorized recreation. Improved access routes would have a positive effect.
Wildlife	Negative long-term cumulative impacts would occur due to mineral development, increased visitor use, and greater demand for human use of wildlife resources. Disturbance to wildlife would result in alteration and avoidance of some wildlife use areas.
Fishery	A small, localized loss of sport fishing quality in Preacher Creek from newly-introduced turbidity. No change to South Steese fishing potential.
Mineral Resources	Closing some placer mining and some lode mining may restrict potential valuable mineral development. Stipulations would increase the cost to operators.
Visual Resources	Some degradation may be caused by ORV use, mining, fire, or trail use.
Soils, Air Quality	Very minor short-term adverse impacts. Some disturbance and erosion from ORV use. Limited air quality degradation and soil loss from fire.
Subsistence	No unavoidable impact.
Water Resource	Short-term and intermittent water quality degradation.
Vegetation	Some limited impact if access routes, trails, or mineral lode deposits are developed (after mitigation).
Cultural and Paleontological	Some destruction and loss of cultural and paleontological resources would occur as a result of direct impacts from mining and development.

ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED SHOULD THE PROPOSAL BE IMPLEMENTED

Recreation

Some primitive values will be lost through mining and recreational development. While these impacts can be minimized through strict enforcement of mining regulations and careful consideration of development, design, and location of facilities, there would be some unavoidable impacts to primitive values.

Wildlife

Natural revegetation would be slow where the soil is disturbed. Reseeding would have to be done with commercially available species that can successfully pioneer disturbed soil. The character of the vegetation in these areas would be unavoidably changed for a few years. The principal habitat affected would be moose winter range.

Some impacts of mineral development and other human activities on wildlife would be short term. Wildlife species which are sensitive to noise, odors, movement, and the presence of man would be most affected by these activities and would avoid areas where these effects occurred. Construction and use of facilities, operation of mining equipment, and increased activity in previously inaccessible areas are factors which would adversely affect wildlife. The ultimate result would be a reduction in wildlife populations in these localized areas.

Long-term impact on wildlife could occur as a result of human use of roads, trails, airstrips, airports, and other areas. Depending on frequency of use, disturbances to wildlife would result in stress on sensitive species and reduce the land area frequented by them.

Populations of wildlife species that are associated with some climax vegetation types could face a short-term reduction in localized areas due to prescription fire and wildfire management practices.

Larger, cumulative impacts on wildlife and habitat would occur when small, apparently insignificant impacts accumulate over time. These impacts would be substantial in the long term if conflicts of mineral development, increased visitor use, and a greater demand by human use on the wildlife resource were not mitigated.

Fish

In-stream placer gold mining unavoidably results in short- to long-term loss of space for fish and other aquatic life. This causes displacement or destruction of local populations of aquatic life within the area of active mining. Downstream effects on habitat which increase sediment on

the channel and bed characteristics of streams also cause changes detrimental to fish populations. Sport fishing opportunity is eliminated in those stream beds where mining occurs, until that mining is completed and the area is successfully rehabilitated.

Water Resources

There would be intermittent and short-term increases in turbidity and settleable solids due to erosion from disturbed areas and breaching of settling ponds during breakup and periods of flooding.

The Relationship Between Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long Term Productivity

This section identifies the trade-offs between short-term use and long-term productivity of the resources involved in the Proposed Plan. For this analysis, short-term refers to the five to ten year period of implementation of the plan, and long-term refers to the period of up to 20 years or beyond in which the adverse or beneficial impacts would still occur.

Mining in the SNCA under the Proposed Plan can have a significant impact on recreational resources on the short term. With proper reclamation of areas and enforcement of protective rules, regulations and plans of operation, long-term effects can be greatly minimized. Failure to effectively enforce these requirements could have severe long-term impacts.

The long-term productivity of wildlife habitat would depend on two major factors. These factors are (1) the extent and timing of development and (2) the success of reclamation efforts where habitat has been physically altered or where wildlife use has been altered or precluded. The short-term, direct effect of mineral development and other activities would be abandonment of the area by some wildlife during development. Most wildlife would be expected to return to developed areas if those areas are successfully reclaimed. A possible exception is the Dall sheep because over the long term, cumulative effects of disturbances in Dall sheep habitat could result in abandonment of traditional-use areas and movement patterns.

Irreversible and Irretrievable Commitment of Resources

This section identifies the extent to which the Proposed Plan would irretrievably limit potential uses of the land and resources. Irreversible and irretrievable commitments of resources occur when a wide range of future options are foreclosed.

Mining activity and development in primitive undisturbed areas is likely to be an irreversible commitment of resources since areas with access seldom revert to a primitive character. Increased recreational access and development will have a similar impact on primitive values in the long term.

Wildlife and habitat are renewable resources over the long term. If mitigative measures designed to minimize or avoid adverse effects of mineral development and other activities were fully employed, there would be little irreversible or irretrievable commitment of wildlife habitat.

The removal of a mineral resource is an irreversible and irretrievable commitment of that specific resource. Affected resources could include sand, gravel, gold, silver, lead, zinc, copper, tin, platinum, tungsten, and rare earth elements.

Chapter III
Steese National Conservation Area - Summary of Environmental Consequences

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
RECREATION					
Impact from mining will greatly reduce existing primitive recreational values.	Degradation of primitive recreational values from mining, associated activities and ORV use over a long period of time. Significant impact on Birch Creek water quality.	Heavy restriction on ORVs limits diversity of recreational opportunities.	Increased mining and related access will impact primitive values. ORV impacts will increase over B. Increase in facilities. Impact on primitive values.	Severe impact to primitive values from ORV use, facilities, and mining in undisturbed areas. Water quality in present clear water tributaries will be greatly degraded.	Same as D.
VISUAL RESOURCES					
Impacts from resource uses will be mitigated by visual assessment and design to meet visual management objectives. Potential for negative effects from development of existing claims.	Potential for impacts from mining and ORV use will exist but should be moderately mitigated.	Same as A.	Substantial potential for impact from new mining activities and ORV use as only 42% will be managed to maintain scenic quality.	Most potential for impacts from mining and ORV use, as only 6% will be managed to maintain scenic quality.	Serious potential for impact from mining and ORV use as only 6% will be managed to maintain scenic quality.
WILDLIFE					
286 acres moose, caribou, and Dall sheep habitat lost to mining and access disturbance.	Same as Proposed Plan except 216 acres lost.	Same as A.	Same as Proposed Plan except 236 acres lost.	Same as Proposed Plan except 326 acres lost.	Same as D.
Management controls will minimize conflicts in crucial habitats during crucial use periods.	Indirect long-term adverse impacts on crucial caribou and Dall sheep habitat due to minimum management controls.	Same as Proposed Plan.	Indirect long-term adverse impacts in crucial caribou and Dall sheep habitat despite management controls to minimize conflicts.	Same as C.	Same as C.
Fire plan and prescription fire will improve quality and quantity of habitat for moose and other species.	Same as Proposed Plan except fire plan only.	Same as Proposed Plan.	Same as Proposed Plan except mechanical treatments also used.	Same as C.	Same as C.
Peregrine falcon nest sites maintained.	Same as Proposed Plan.	Same as Proposed Plan except both nesting and prey gathering areas maintained and formal critical habitat designated.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
FISH					
Birch Cr. (mainstem) (1) habitat recovery period reduced from present situation.	Habitat recovery period maintainedy at present level.	Habitat recovery period reduced or shortenend.	Habitat recovery period increased.	Same as C.	Same as C.
South Fork B.C. & other south side tributaries Sport fishing opportunities maintained at present level.	Sport fishing opportunities decrease from present level.	Sport fishing opportunities maintained at present level.	Sport fishing opportunities decrease from present level.	Same as C.	Same as C.
Preacher Cr. (2) Potential sport fishing opportunity reduced from present level.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.
MINERALS					
Oil & Gas Leasing 25% of area closed to leasing. 46% of area has special restrictions.	All closed.	All closed.	6% closed to leasing. 46% closed to surface occupancy.	6% closed to leasing. 1% closed to surface occupancy.	Same as D.
Locatable New Claim Location: 25% of area closed. 46% of area has special water quality and seasonal access restrictions which will increase operational costs up to 100%.	New Claim Location: All closed.	Same as A.	New Claim Location: 42% closed.	New Claim Location: 6% closed.	Same as D.
Same as A	Development: on existing 2847 claims.	Same as A.	Same as A.	Same as A.	Same as A.

(1) Sport fishing opportunity in mainstem Birch Creek presently does not exist and probably will not exist for the life of this plan.
(2) Potential sport fishing opportunity could be enhanced if access is improved. The decrease in opportunity reflects the impact of turbid water from increased placer mining activity on ability of anglers to catch grayling.

Proposed Plan	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
CULTURAL AND PALEONTOLOGICAL RESOURCES					
Site specific or Class III Inventories will be conducted as development demands to avoid adverse impacts to significant site. Mining activity will have an adverse effect on those resources which cannot be protected.	Class III Inventories will be conducted for all proposed surface-disturbing activities on a case by case basis to mitigate adverse impacts.	Some indirect impacts will result from recreational use. See Proposed Plan for other effects.	See Proposed Plan for other effects.	See Proposed Plan for other effects.	Same as Alternative D.
WATER QUALITY					
Water quality enhanced.	Noticeable impacts for entire length of Birch Creek.	Same as A.	Same as A.	Same as A.	Same as A.
VEGETATION					
No significant impacts.	Same as Proposed Plan.	Same as Proposed Plan.	Some short-term impacts from mining and roads.	Same as C.	Same as C.
SOILS					
No significant impacts.	No significant impacts.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.
AIR					
No significant impacts	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.
ACCESS					
No significant impacts	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.
SOCIAL AND ECONOMIC CONDITIONS					
Restricted mining will economically impact a few; overall no significant impact	Present closure impacts some to unknown degree	Same as A	Some conflicts between users	Same as C	Same as C
SUBSISTENCE					
No significant restrictions	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.	Same as Proposed Plan.
SUPPORT NEEDS					
Same as D	Present levels	Increase in funding and personnel over B	Same as B	Increased need over B	Same as D

CHAPTER IV

CONSULTATION, COORDINATION, CONSISTENCY, AND PUBLIC PARTICIPATION

Public Involvement During Development of the Environmental Impact Statement

At the beginning of the planning process, notices inviting public participation were published in the Federal Register and four Alaskan newpapers. A mailing list of interested parties was compiled and continually updated as planning proceeded.

Prior to completion of the Draft Resource Management Plan/Environmental Impact Statement, comments were solicited at three points in the process: identification of issues, development of criteria, and estimation of effects of alternatives. Comments were solicited by mail. In addition, public meetings were held during the estimation of effects of alternatives in Fairbanks, Central, and Birch Creek. Briefings were given on request to a number of agencies and organizations.

The Fairbanks District Advisory Council played a major role in the development and quality of the RMP/EIS. The Council met six times during the course of the planning process and provided significant and cogent comments which aided materially in the preparation of the final RMP/EIS. The members of the Council provided specific input into the planning process by resolutions and recommendations. Their participation was recognized as a key element in the District and State Office discussions on the alternatives and on the quality control.

The Draft RMP/EIS was published December 30, 1983, and public comments on the Draft were accepted until March 30, 1984. The Draft RMP/EIS was sent to all persons and groups on the mailing list and was available on request from the Fairbanks District Office or the Alaska State Office of BLM. Public meetings and workshops were held in Fairbanks, Anchorage, and Circle Hot Springs to answer questions and solicit comments on the Draft RMP/EIS. Public comments are summarized and discussed in Chapter V.

To ensure consistency with plans for adjacent lands, adjacent land managers (State of Alaska, U.S. Fish and Wildlife Service, and National Park Service) were included in the contact group from the beginning of the process.

Adjacent federal lands managed by BLM include the White Mountains National Recreation Area. A land use plan has also been written for this area. To ensure coordination between plans for the SNCA and the WMNRA, both plans were prepared simultaneously by the same planning team. The Proposed Plan/Environmental Impact Statement for the WMNRA has been published separately and is available from BLM.

List of Agencies, Organizations, and Persons to Whom the Final Environmental Impact Statement was Sent

Alaska Commissioner
Department of Natural Resources
Honorable Ester Wunnicke
Juneau, Alaska

Alaska Department of Transportation
and Public Facilities
Fairbanks, Alaska

Alaska Department of Transportation
and Public Facilities
Juneau, Alaska

Alaska Land Use Council
State Chairman
Honorable Bill Sheffield
Juneau, Alaska

Alaska Land Use Council
Vernon R. Wiggins
Anchorage, Alaska

Alaska State Representative
Bob Bettisworth
College, Alaska

Alaska State Representative
Mike Davis
College, Alaska

Alaska State Representative
Bettye Fahrenkamp
Fairbanks, Alaska

Alaska State Senator
Don Bennett
Fairbanks, Alaska

AMAX Exploration, Inc.
Lakewood, Colorado

AMOCO Production Corp.
Anchorage, Alaska

AMOCO Production Company
Denver, Colorado

AOGA
Anchorage, Alaska

ARCO Exploration
Anchorage, Alaska

Abrahamsen, Sue
West St. Paul, Minnesota

Abuza, Robert
Northhampton, Maine

Achman Mine
Fairbanks, Alaska

Ackels, Del M.
Fairbanks, Alaska

Ackels, James and Nancy
Fairbanks, Alaska

Adams, Francis Jeffery
Northway, Alaska

Adams, Roxana
Juneau, Alaska

Adler, Kurt
Anchorage, Alaska

Adler, Robert W.
New Cumberland, Pennsylvania

Alaska Alpine Club
Fairbanks, Alaska

Alaska Biological Research
Fairbanks, Alaska

Alaska Center for the Environment
Anchorage, Alaska

Alaska Department of
Environmental Conservation
Fairbanks, Alaska

Alaska Department of Fish and Game
Anchorage, Alaska

Alaska Dogmushers Association
Fairbanks, Alaska

Alaska Federation of Natives
Anchorage, Alaska

Alaska Gold Company
Fairbanks, Alaska

Alaska Miners Association
Anchorage, Alaska

Alaska Miners Association
Fairbanks, Alaska

Alaska Oil and Gas Association
Anchorage, Alaska

Alaska Railroad
Anchorage, Alaska

Alaska State Parks
Anchorage, Alaska

Alaskan Prospectors and Miners News
Fairbanks, Alaska

Allen, Brian
Fairbanks, Alaska

Allaway, James
Anchorage, Alaska

American Rivers
Washington, D.C.

Anaconda Copper Co.
Anchorage, Alaska

Anaconda Copper Co.
Denver, Colorado

Anderson, Brandon
Fairbanks, Alaska

Anderson, Dean
Mercer Island, Washington

Anderson, Tury and Charles
Fairbanks, Alaska

Arctic Audubon Society
College, Alaska

Arctic Mining Systems
Fairbanks, Alaska

Arctic Circle Hot Springs Lodge
Central, Alaska

Atlantic Richfield Co.
Denver, Colorado

Ault, Robert
Fairbanks, Alaska

BLEM Mining Co.
Fairbanks, Alaska

BTW Mining and Exploration Co.
Anchorage, Alaska

Babula, Walter, Dr.
Fairbanks, Alaska

Backus, Doug
North Pole, Alaska

Barelka, Paul
Fairbanks, Alaska

Barksdale, John and Josephine
Anchorage, Alaska

Barnard, Jim
Fairbanks, Alaska

Bast, Dr. Fred D.
Fairbanks, Alaska

Batchelor, Harold
Fairbanks, Alaska

Bauer, Vern and Sue
Fairbanks, Alaska

Bayette, Marsha
Fairbanks, Alaska

Bear Creek Mining
Anchorage, Alaska

Beecher, Ned
New Haven, Connecticut

Behr, Mr. and Mrs. David
Central, Alaska

Benson, Elizabeth A.
Fairbanks, Alaska

Berkhahn, Bill
Fairbanks, Alaska

Biessel, Kathy
Fairbanks, Alaska

Big Joe, Rocker, Jr.
Fairbanks, Alaska

Biliper
Hadlyme, Connecticut

Birch, Horton, Bittner,
Monroe, Pestinger, and Anderson
Fairbanks, Alaska

Bishop, Sam
Fairbanks, Alaska

Bloom, Larry
Fairbanks, Alaska

Bohms, Mark
Fairbanks, Alaska

Bosba, Frank R.
Fairbanks, Alaska

Bottom Dollar Mining Co.
Central, Alaska

Bouton, Jeff
College, Alaska

Braddock, Douglas T.
Fairbanks, Alaska

Bradley, Nattalie D.
Fairbanks, Alaska

Brown, James
Fairbanks, Alaska

Buchanan, Tim K.
Fairbanks, Alaska

Bureau of Indian Affairs
Fairbanks, Alaska

Bureau of Land Management
Wheat Ridge, Colorado

Bureau of Mines
Fairbanks, Alaska

Burger, Sam
Fairbanks, Alaska

Burggraf, Roger C.
Fairbanks, Alaska

Burton, Jeff
Fairbanks, Alaska

Burton, Jeffrey
Fairbanks, Alaska

Burwell, Michael
Anchorage, Alaska

Butts, Earl and Martha
Hubbard, Oregon

Byrd, Dick L.
Fairbanks, Alaska

Calamari, Richard
Fairbanks, Alaska

Carder, Mike and Rex
Central, Alaska

Carlin, Steve and Donna
Fairbanks, Alaska

Carlson, Betty
Fairbanks, Alaska

Carlson, Karl R.
Fairbanks, Alaska

Carlyle, James S.
Soldotna, Alaska

Carpenter, M.
Fairbanks, Alaska

Carroll, James Newton
North Pole, Alaska

Caulfield, Richard A.
Fairbanks, Alaska

Cavanaugh, David L.
Girdwood, Alaska

Chapin, Melissa
Fairbanks, Alaska

Chaping, F. Stuart III
Fairbanks, Alaska

Charles, Steve
Willow, Alaska

Chugach Natives, Inc.
Anchorage, Alaska

Chumbley, James
Fairbanks, Alaska

Chumbley, Cynthia
Fairbanks, Alaska

Circle District,
Historical Society, Inc.
Central, Alaska

Circle Mining District
Central, Alaska

Citizens Advisory Committee
on Federal Areas
Fairbanks, Alaska

Clark, Dexter and Lynette
Fairbanks, Alaska

Clear/Healy Advisory Comm.
Clear, Alaska

Council of Alaskan Archaeology
Anchorage, Alaska

Coe, Gregory J.
Fairbanks, Alaska

Coe, Walter R.
Louisville, Kentucky

Collins, Florence R.
Lake Minchumina, Alaska

Colorado State Univ. Library
Fort Collins, Colorado

Cominco American Incorporated
Spokane, Washington

Continental Oil Co.
Houston, Texas

Cook, Al
Fairbanks, Alaska

Cooper, Lee W.
Fairbanks, Alaska

Cooper, Steve
Anchorage, Alaska

Cooperative Extension Service
Fairbanks, Alaska

Cooperative Wildlife Research
Fairbanks, Alaska

Corazza, Rich
Homer, Alaska

Cornwall, Tom
College, Alaska

Coronado Mining Corp.
Anchorage, Alaska

Cotton, Jack W., Sr.
Fairbanks, Alaska

Cowan, Margaret
College, Alaska

Crane, John and Jean
Fairbanks, Alaska

Crawford, Bart and Shelly
Fairbanks, Alaska

Cukurs, Vita V.
Anchorage, Alaska

Daum, David W.
College, Alaska

Davis, Ron
Fairbanks, Alaska

Delta Advisory Committee
Delta Junction, Alaska

Demientieff, Samuel S.
Fairbanks, Alaska

Denbow, Ed
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Department of Fish and Game
Juneau, Alaska

Department of the Interior
Anchorage, Alaska

Department of Environmental
Conservation
Juneau, Alaska

Dianne, Paul
Wiseman, Alaska

Dickersons Folly Inc.
Fairbanks, Alaska

Dickinson, John
Fairbanks, Alaska

Dinkins, Hal
Fairbanks, Alaska

Dinyea Corporation
Fairbanks, Alaska

Dollar, Frances
North Hollywood, California

Doyon, Limited
Fairbanks, Alaska

Draper, Hal and Nadyne
Fairbanks, Alaska

Dukes, Ron
Fairbanks, Alaska

Dullen, Michael R.
Fairbanks, Alaska

Dunn, William Philip
Juneau, Alaska

Duval Corporation
Tucson, Arizona

Ebasco Services
Bellvue, Wisconsin

Edlund, Bill
Fairbanks, Alaska

Elliot, Robert
Fairbanks, Alaska

Elmer E. Rasmuson Library
Fairbanks, Alaska

Emerson, Robert and Thomas
Fairbanks, Alaska

Emmerson, R. C.
Fairbanks, Alaska

Ensign, Fred F.
Fairbanks, Alaska

Enstar Natural Gas Co.
Anchorage, Alaska

Environmental Impact Services
Tucson, Arizona

Erickson, Roy E.
Fairbanks, Alaska

Evanger, Jacqueline R.
Denver, Colorado

Fabrizio, Brad
Fairbanks, Alaska

Fairbanks Advisory Committee
Fairbanks, Alaska

Fairbanks North Star Borough
Fairbanks, Alaska

Fairbanks Town and Village Association
Fairbanks, Alaska

Federal Highway Administration
Juneau, Alaska

Finnoff, Ramona
Fairbanks, Alaska

Fletcher, Douglas C.
Leaburg, Oregon

Fort Yukon Historical Society
Ft. Yukon, Alaska

Freeman, Leslie L.
Fairbanks, Alaska

Friesima, H. Paul
Evanston, Illinois

Fritts, Mary
Fairbanks, Alaska

Fyten, Warren J.
Fairbanks, Alaska

Galena Advisory Committee
Nulato, Alaska

Garee, Dave
North Pole, Alaska

Gelvin, Mr. and Mrs. Ed
Central, Alaska

Gelvin, Stanley and Andrea M.
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General Crude Oil Co.
Anchorage, Alaska

Geophysical Institute
Fairbanks, Alaska

Geraghty Mining
Fairbanks, Alaska

Geraghty, Bruce R.
Fairbanks, Alaska

Gho, Mario
Fairbanks, Alaska

Gibbs, D.
Anchorage, Alaska

Gibson, Michael E.
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Gibson, Wayne and Ellen
Fairbanks, Alaska

Giles, John
Fairbanks, Alaska

Glass, Cynthia
Fairbanks, Alaska

Golden Ram Mining Corp.
Anchorage, Alaska

Goodrick, Terry
Denver, Colorado

Gordon, Richard J.
Juneau, Alaska

Gottschalk, Michael T.
College, Alaska

Gower, Jim and Jan
Fairbanks, Alaska

Grayling/Anvik/Shageluk/
Holy Cross Advisory Committee
Anvik, Alaska

Greer, Paolo
Fairbanks, Alaska

Gregory, Patti
Fairbanks, Alaska

Greif, Richard
Fairbanks, Alaska

Grundberg, Carl
Fairbanks, Alaska

Groves, Joanne E.
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Gulf Mineral Resources Co.
Anchorage, Alaska

Hamilton, Robert S.
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Hanna Mining Co.
Cleveland, Ohio

Hansen, Vickie
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Harrison, Rochelle
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Hartle, John
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Haskins, George
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Hassel, Jerry
Ester, Alaska

Heatherly, Glenn
Anchorage, Alaska

Heflinger, Carl
Fairbanks, Alaska

Herb, Marrianne
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Herning, Harold R.
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Herzog, Martha
Anchorage, Alaska

Hicks, Mrs. Leon
Joliet, Montana

Hiller, Geroge
Fairbanks, Alaska

Hills, Susan
College, Alaska

Hite, Larry and Loren
Fairbanks, Alaska

Hite, Loren C. and Helen
Fairbanks, Alaska

Hocking, Nancy
Ester, Alaska

Holt, Carson and Hazel
Fairbanks, Alaska

Hopkins, David
Mercer Island, Washington

Houk, Dean and Shirlee
Fairbanks, Alaska

Houston International
Minerals Corp.
Denver, Colorado

Houston Oil and Mineral
Exploration Co.
Anchorage, Alaska

Hunter, Celia M.
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Hutton, Mrs. Frank
Fairbanks, Alaska

Institute of Northern Forestry
Fairbanks, Alaska

Interior River Users Group
Ester, Alaska

Interior Village Association
Fairbanks, Alaska

Interior Woodcutters Assoc.
Fairbanks, Alaska

International Air Transport.
Anchorage, Alaska

Ivison, Sue
Fairbanks, Alaska

Jackson, Stewart A.
Littleton, Colorado

Jacobs, Mervin
Eagle River, Alaska

James, Stephen H.
Anchorage, Alaska

Jeffers, Dennis W., DDS
Fairbanks, Alaska

Jodwalis, John
Fairbanks, Alaska

Johnson, George and Barbara
Fairbanks, Alaska

Johnson, Jill
Copper Center, Alaska

Johnson, Ron, Dr.
Fairbanks, Alaska

Joiner, Jim
Fairbanks, Alaska

Jones, Colleen T.
Anchorage, Alaska

Jordan, Loyal
Fairbanks, Alaska

Jorgenson, Torre
Fairbanks, Alaska

Junk, Gary
Ft. Wainwright, Alaska

Justice, Stan
Fairbanks, Alaska

KAK Tours
Fairbanks, Alaska

Kaufman, Ted
Nenana, Alaska

Kay, Charles
Missoula, Montana

Kaye, Roger
Bethel, Alaska

Keill, Don
Fairbanks, Alaska

Keim, Frank
Scammon Bay, Alaska

Keim, Mike
Fairbanks, Alaska

Kelly, Joseph
Fairbanks, Alaska

Kelly, Kevin P.
Fairbanks, Alaska

Kern, Greg
Fairbanks, Alaska

Khalsa, Guru Singh, Dr.
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Kirchner, Scott M.
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Knott, Lawrence M.
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Koyukuk Advisory Committee
Alatna, Alaska

Krenzle, Mark K.
Nenana, Alaska

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LaPorte, John J.
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Lacey, David
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Lamb, Kenneth
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Lands for Arctic Slope
Regional Corporation
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Lappi, Arthur J.
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Largent Walter
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Larson, Milnor and Marion L.
Fairbanks, Alaska

Larson, Wayne F.
Fairbanks, Alaska

Leaphart, Stan
Fairbanks, Alaska

Lester, Mike
Central, Alaska

Liccese, Joseph E.
New Brunswick, New Jersey

Lindsten, Barry
Central, Alaska

Litchfield, M.
Savannah, Georgia

Livingston, Harold R.
Fairbanks, Alaska

Lombard, Stephen C.
Eagle River, Alaska

Lowe, Paul
Anchorage, Alaska

Lyle, Melody R.
Fairbanks, Alaska

Lyle, Ray
Fairbanks, Alaska

Lynes, Elizabeth W.
Savannah, Georgia

MapCo Inc.
Tulsa, Oklahoma

Magic Circle Mining, Inc.
Fairbanks, Alaska

Mahalic, Dave
Eagle, Alaska

Maisch, John and Mary B.
(No address available)

Mangan, Colleen
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Mann, Lori D.
Burlingame, California

Manning, Kenneth
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Mapco Minerals Corp.
Golden, Colorado

Marcy, Bob
Fairbanks, Alaska

Markham, Leslie D.
North Pole, Alaska

Marlen, Nina
St. James, New York

Matthews, Ray
Tok, Alaska

Matthewson, Terry
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Mattson, Mark H.
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Matviyak, Ron
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Matz, Mike
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Mauer, Fran
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Mauget, David
Fairbanks, Alaska

May, Dan and Beverly
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May, Ronald M.
Fairbanks, Alaska

Mayhr, Don
Fairbanks, Alaska

McCarter, David J., Sr.
Fairbanks, Alaska

McCarthy, Gary
Anchorage, Alaska

McCaw, Jack
Fairbanks, Alaska

McDowell, Thomas E.
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McGrath Advisory Committee
McGrath, Alaska

McGriff, Ed
Grants Pass, Oregon

McLaughlin, Wm.
Savannah, Georgia

McLellan, Toni
Madison, Wisonsin

McLinn, W. M.
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McSorley, Norma
Fairbanks, Alaska

Mechon, Robert D.
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Meeks, Ann O.
Idaho Falls, Idaho

Melart Inc. Landru
Fairbanks, Alaska

Miller, Archie and Ken
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Miller, Ken
Beaver Creek, Alaska

Miller, John
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Miner's Rights Action Group
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Mineral Exploration Coalition
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Mock, Carl O.
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Montano, William
Fairbanks, Alaska

Monzulla, Vincent and Linda
Fairbanks, Alaska

Morlanen, Donald
Fairbanks, Alaska

Muehlenkamp, Bill and Chuck
Fairbanks, Alaska

Musketeers and Co.
Fairbanks, Alaska

NC Machinery Co.
Fairbanks, Alaska

Nash, Gary W.
Fairbanks, Alaska

National Oceanic and
Atmospheric Administration
Juneau, Alaska

National Parks and
Conservation Association
NW Washington, D.C.

National Audubon Society
Anchorage, Alaska

National Park Service
Anchorage, Alaska

National Park Service
Fairbanks, Alaska

National Wildlife Federation
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Nester, Beverly A.
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Nicholls, Jim
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Niedermeyer, Deborah
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Northern Alaska
Ecological Services
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Northern Alaska
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Oakes, Pat
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Odell, Judy
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Office of Management and Budget
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Savannah, Georgia

Osborn, David
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Owen, Dana
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Parker, David L.
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Parker, Steve
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Pavelsky, Birch
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Pedersen, Robert A.
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Pederson, Jeff
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Pederson, Robert H.
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Peet, Lee
North Pole, Alaska

Peltola, Elizabeth C.
College, Alaska

Pervis, Jeny
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Peter Kiewit and Sons
Omaha, Nebraska

Peterson, Palmer
Fairbanks, Alaska

Petty, C. A.
Canton, New York

Phillips Petroleum Co.
Anchorage, Alaska

Placer Miners of Alaska
Fairbanks, Alaska

Planning and Programs
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Platz, Billy
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Platz, Mike
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Pollock, Keith
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Pratt, Fred
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Prudential
Fairbanks, Alaska

Pysz, Kenneth
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R. W. Beck and Associates
Seattle, Washington

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Regan, Dan and James
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Reichardt, Terry and Paul
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Resource Associates of Alaska
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Resource Exploration Consultant
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Reynolds, Andy
Ester, Alaska

Reynolds, Ron
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Richards, Hugh
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Riedel, Elonore
Fairbanks, Alaska

Rieter, James
Central, Alaska

Ringstad, Mark
Fairbanks, Alaska

Ristow, Tim
North Pole, Alaska

Ritter, John
Fairbanks, Alaska

Roberts, Randy
Eielson AFB, Alaska

Robertson, John K.
Fairbanks, Alaska

Robinson, E. Allan
Anchorage, Alaska

Robinson, E. B., Jr.
Marlboro, Maine

Rogers, Laurie M.
Hoodsport, Washington

Rogers, Randy R.
College, Alaska

Rosetti, Michael
Fairbanks, Alaska

Ross, Carol L.
Wrangell, Alaska

Rowe, David
Fairbanks, Alaska

Rowe, Richard
Fairbanks, Alaska

Ruby Advisory Committee
Ruby, Alaska

Rybachek, Stan and Rose
North Pole, Alaska

Southeast Alaska
Conservation Council
Juneau, Alaska

Sanchez, J.
Tucson, Arizona

Sanders, T.
Tucson, Arizona

Sandor, John A.
Juneau, Alaska

Sauer, Jeffrey F.
Kenai, Alaska

Sayers, Vincent Thomas
Amherst, Maine

Scenic Lands Foundation
Park Ridge, Illinois

Schamer, John and Karen
Fairbanks, Alaska

Scharenberg, Randolf
Fairbanks, Alaska

Schikora, Jay
College, Alaska

Schmidt, Dana
Fairbanks, Alaska

Schmidt, Lee M.
Mt. Edgecumbe, Alaska

Schneider, Joe
Fairbanks, Alaska

Scott, Barbara
Fairbanks, Alaska

Shaffer, Dubois and Association
Grand Rapids, Michigan

Shamrock, Diamond
Denver, Colorado

Shawcroft, Bob
Fairbanks, Alaska

Shawcroft, Tom
Fairbanks, Alaska

Shebal, Leroy W.
North Pole, Alaska

Shellinger, Edward
Fairbanks, Alaska

Shideler, Richard
Fairbanks, Alaska

Ship, Van
Versailles, Kentucky

Shoemaker, Philip
Fairbanks, Alaska

Shon, Lisa
Fairbanks, Alaska

Shorthill, Carry
Chugiak, Alaska

Shotack, Russ
Fairbanks, Alaska

Shuman, Guy
Fairbanks, Alaska

Sibbitt, Brad
Fairbanks, Alaska

Sierra Club
Anchorage, Alaska

Sigman, Marilyn
Juneau, Alaska

Sims, Harold and Joel
Fairbanks, Alaska

Sims, Michael
Fairbanks, Alaska

Sisk, John
Juneau, Alaska

Sisson, Cany
Ester, Alaska

Skillinger, Bob
St. Paul, Minnesota

Sloss, Jeff
Juneau, Alaska

Smith, C. Orbin III
Fairbanks, Alaska

Smith, Joseph E.
Fairbanks, Alaska

Snodgren, Dan
Fairbanks, Alaska

Social Science Library
Moscow, Idaho

Sohio Petroleum Co.
Dallas, Texas

Solie, Diana N.
College, Alaska

Souli, Harold
Anchorage, Alaska

Sourdough Heating, Inc.
Fairbanks, Alaska

State Historical Preservation
Officers Office
Anchorage, Alaska

St. Louis, Rita
Fairbanks, Alaska

Stenberg, Katy
Redmond, Washington

Stephens, Dennis
Fairbanks, Alaska

Stevens, Don
Stevens Village, Alaska

Stevens, Timothy
College, Alaska

Stevenson, Carole
College, Alaska

Stoepler, Otto and Billie
McKinley, Alaska

Stolzberg, Richard J.
Fairbanks, Alaska

Stoneman, Albert G.
Fairbanks, Alaska

Stratton, Jim
Juneau, Alaska

Studebaker, Bill
Fairbanks, Alaska

Sturmann, Alfred
Fairbanks, Alaska

Sturnick, Mark A.
Fairbanks, Alaska

Stuvek, Sallie M.
Fairbanks, Alaska

Sumner, Dick
Fairbanks, Alaska

Sunshine Copters
Circle City, Alaska

Svenningson, Al
Fairbanks, Alaska

Svensk Foresty Consulting
Fairbanks, Alaska

Swanson, John R.
Berkeley, California

Sweetman, John
Fairbanks, Alaska

Swibold, Chuck
Fairbanks, Alaska

Sycamore Associates
Trout Lake, Washington

Tanana Advisory Committee
Minto, Alaska

Tanana Chiefs Conference, Inc.
Fairbanks, Alaska

Tanana Valley Sportsmans Association
Fairbanks, Alaska

Tanana-Yukon Historical Society
Fairbanks, Alaska

Tarrant, Ron
Fairbanks, Alaska

Teel, Mary Lou
Fairbanks, Alaska

Terry's Cafe
Fairbanks, Alaska

Tesoro Petroleum Co.
San Antonio, Texas

The Wilderness Society
Washington, D.C.

Thomas, John and Martha
Central, Alaska

Thorne, Dan
West Sacramento, California

Thorpe, Anne
Eagle River, Alaska

Thumma, Karl
Fairbanks, Alaska

Thurow, Gregory E.
Anchorage, Alaska

Tilsworth, Tim
Fairbanks, Alaska

Timm, Dennis
Fairbanks, Alaska

Tinsley, Ron
Fairbanks, Alaska

Tolbert, Russell
Fairbanks, Alaska

Tomsha, Louis A.
Valley, Washington

Tri-Con Mining, Inc.
Fairbanks, Alaska

Trinity Mining Co.
Anchorage, Alaska

Trustees for Alaska
Anchorage, Alaska

Tucker, Bob
Anchorage, Alaska

Tucker, Carolyn A.
Savannah, Georgia

Tuharsky, Peter
Fairbanks, Alaska

U.S. Borax
Spokane, Washington

U.S. Borax
Los Angeles, California

U.S. Congressman
Honorable Don Young
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U.S. Environmental Protection Agency
Anchorage, Alaska

U.S. Environmental Protection Agency
Seattle, Washington

U.S. Fish and Wildlife Service
Anchorage, Alaska

U.S. Fish and Wildlife Service
Fairbanks, Alaska

U.S. Forest Service
Juneau, Alaska

U.S. Senator
Honorable Frank Murkowski
Fairbanks, Alaska

U.S. Senator
Honorable Ted Stevens
Fairbanks, Alaska

Union Oil Co. of California
Los Angeles, California

University of Alaska
Fairbanks, Alaska

Upper Tanana/40 Mile
Advisory Committee
Tok, Alaska

Usibelli Coal
Usibelli, Alaska

Ussery, Diane
Fairbanks, Alaska

Van Horn, Joe
Denali Park, Alaska

VanNieuwenhuyse, Erwin
Fairbanks, Alaska

Vetter, Rudolph
Fairbanks, Alaska

Vogler, Joespeh and Doris
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Voorhees, Larry
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Vrbka, Leonard J.
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WGM, Inc.
Anchorage, Alaska

Wager, Jim
College, Alaska

Walker, Lars
Fairbanks, Alaska

Wallace Diamond Mining, Inc.
Osburn, Idaho

Warner, Henry and Helen
College, Alaska

Warren, Mary M.
Fairbanks, Alaska

Watson, Sarah M.
Fairbanks, Alaska

Wayburn, Edgar
San Francisco, California

Waziak, F. E.
Fairbanks, Alaska

Weeden, Bob
Fairbanks, Alaska

Weinstock, June
Fairbanks, Alaska

Wells, Ralph A., M.D.
Fairbanks, Alaska

Welna, Joseph
Fairbanks, Alaska

Welty, Lloyd and Phillis
Fairbanks, Alaska

Wernett, Frank
Homer, Alaska

Westenburg, Lee
Fairbanks, Alaska

Wetzel, Dan
Fairbanks, Alaska

Whisenhant, Jim
Fairbanks, Alaska

Wietchy, Daniel M.
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Wiggs, Raymond L.
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Wilcie, Milt, Dr.
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of Forestry
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Wilde, Dorothy
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Wilderness Society
Juneau, Alaska

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Wilkinson, Fred D.
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Williams, Dena and Nancy
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Williams, Jane
Fairbanks, Alaska

Williams, Rourke
Fairbanks, Alaska

Wilson, Don
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Wilson, Harry E.
East Meadow, New York

Winters, Jack
Fairbanks, Alaska

Wolf, Ray
Cave Junction, Oregon

Wood, Dan
Fairbanks, Alaska

Wood, Richard A.
Fairbanks, Alaska

Wood, Virginia H.
Fairbanks, Alaska

Wood, Walter and Lillian
Valdez, Alaska

Woodby, Doug
Fairbanks, Alaska

Woodham, Harold
Fairbanks, Alaska

Woodman, Stan and Kim
Homer, Alaska

Woods, Harold Edward
Fairbanks, Alaska

Woolington, James D.
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Wygle, Don
Gales Creek, Oregon

Yacino, Margaret M.
E. Douglas, Maine

Yeomans, Becky
Savannah, Georgia

Yukon Flats Advisory Committee
Stevens Village, Alaska

Yukon Flats National Wildlife Refuge
Fairbanks, Alaska

Yukon Koyukuk Charters
Chugiak, Alaska

Yukon-Charley Rivers
National Preserve
Eagle, Alaska

Zaccard, Mike
Anchorage, Alaska

Zielski, Michael
Fairbanks, Alaska

Zimmer, Tom
Fairbanks, Alaska

Zwaneveld, Pete
Stafford, Arizona

RESPONSE TO PUBLIC COMMENT

CHAPTER V

One hundred and eighty-seven written comments on the Draft RMP/EIS were received during the public comment period, December 30, 1983, to March 30, 1984. In addition, nineteen people made formal statements at the public meetings held during this period. Many comments pertained to the Draft RMP/EIS for the White Mountains National Recreation Area as well as to the SNCA since the White Mountains Draft RMP/EIS was circulated for comment at the same time.

All written and oral comments were reviewed and were considered in the preparation of this final EIS. Because of the exceptionally voluminous response to the call for comments, this chapter will present a summary of substantive comments and the Bureau's reply to those comments. Many of the comments were similar in nature; some were duplicate copies or paraphrased versions of comments submitted by organizations. Therefore, even though a large number of comments were received, the majority of them are accurately described in the summary of substantive comments.

Some individuals and organizations submitted detailed and specific comments which are not entirely covered by the summary. These comments are reproduced here, and individual responses are provided. A complete file of all comments received is available for public inspection at the Fairbanks District Office.

Summary of Substantive Comments and Replies

COMMENT NO. 1

The document does not meet the requirements for an Environmental Impact Statement set by the Council of Environmental Quality. More thorough analyses of mitigating measures, unavoidable adverse impacts, relationships between short-term use of resources and long-term productivity, and irreversible and irretrievable commitments of resources are necessary.

REPLY

Regulations for implementing the procedural provisions of the National Environmental Policy Act (40 CFR 1500) as well as written guidance from the Council of Environmental Quality have been followed throughout the planning process. Analyses in the Draft RMP/EIS were considered appropriate to the significance of the decisions being made. However, in response to public comments, background information and the analysis of such information have been greatly expanded in this document. See Chapters 1, 2, and 3.

COMMENT NO. 2

"Wildlife Special Management Area" and "Limited Mineral Development Zone" are terms used in the document but not adequately defined. What do they mean?

REPLY

These terms are defined in the Glossary. Please note that they apply only to alternatives in the EIS portion of this document. They do not apply to the Proposed Plan.

COMMENT NO. 3

The Preferred Alternative does not give adequate consideration to caribou range and Birch Creek, as required by ANILCA. This alternative would result in a significant increase in placer mining and other types of mineral development which would further degrade water quality in Birch Creek and lead to other unacceptable adverse impacts. Mitigating measures described in the Draft RMP/EIS are inadequate. All of this is contrary to the intent of Congress in establishing the SNCA.

REPLY

The Proposed Plan is a modification of the Preferred Alternative presented in the Draft RMP/EIS. Changes were made to ensure full compliance with the intent of ANILCA. In the Proposed Plan, the most crucial areas of caribou habitat would be closed to mineral entry and, in other areas, specific stipulations would be applied designed to protect caribou habitat. Measures for improving water quality in Birch Creek have been strengthened and more clearly defined.

COMMENT NO. 4

Mineral resources within the SNCA were not adequately identified during the planning process. Decisions to open or close areas to mineral development should not be made without better data.

REPLY

The best data available was used in the preparation of the Draft RMP/EIS. During the comment period, additional mineral resource data was submitted by the Alaska Division of Mining and other sources. This data was incorporated into the Final EIS (see updated mineral resources text and maps in Chapter II) and was considered in formulation of the Proposed Plan.

We are aware of on-going efforts to collect mineral resources data on the part of the U.S. Geological Survey, the U.S. Bureau of Mines, and the Minerals Industry Research Laboratory. Also, the Proposed Plan would provide for a mineral resource assessment program to be conducted by

public and private groups. All such information would be reviewed when the plan is monitored and could be used in the formulation of amendments. Because this information can be used as it becomes available, we do not believe it is necessary to delay planning decisions until thorough mineral exploration is complete.

COMMENT NO. 5

Off-road vehicles, even those under 1,500 pounds, should not be allowed in most parts of the SNCA, especially in areas where primitive values are to be maintained. ORVs will damage soils and vegetation and disturb wildlife. Even if they are not a problem now, they will become a problem if no steps are taken to control them.

REPLY

In view of the public demand for total ORV closures in some areas, the Proposed Plan has been written so as to prohibit ORVs in areas where primitive values are to be maintained, and these primitive areas have been enlarged from those delineated in the Preferred Alternative in the Draft RMP/EIS.

However, because ORV use can be a legitimate form of recreation or transportation when appropriate environmental safeguards are in place, much of the SNCA would remain open to ORVs of less than 1,500 pounds GVW. Because of the remoteness of most of the area, present use of ORVs is relatively light and has not resulted in significant problems. We believe it is unlikely that this situation will change substantially. A monitoring program would be established to check for environmental damage caused by ORVs, and ORV use would be further restricted if such damage did occur.

COMMENT NO. 6

Most of the area should be kept in a primitive or wilderness condition with little or no motorized transportation. Access should not be improved. Wilderness designations should be considered. Mining should be limited to existing claims. No new ground should be opened to mining or other types of development because of the threat that these activities pose to water quality, primitive values, wildlife, and other resources. These actions are necessary to comply with the intent of Congress as expressed in ANILCA.

REPLY

As the result of further analysis following the comment period, the Proposed Plan would provide substantially more primitive area than the Preferred Alternative in the Draft RMP/EIS. Within these areas, mining would be limited to existing claims, and access would remain difficult.

In certain other areas, new mineral entry and improved access could be allowed. Such actions would be subject to stipulations designed to ensure environmental protection, with special attention to the two special values identified in ANILCA, caribou range and Birch Creek. The Proposed Plan would be in full compliance with ANILCA, which requires "protection of the lands in Federal ownership within the framework of a program of multiple use and sustained yield" (Section 401) and which specifically authorizes the Secretary to open lands to entry, location, and patent under the United States mining laws (Section 402).

Impacts on wilderness values were considered in the EIS. (See Chart III.) However, in light of the exhaustive wilderness reviews that have taken place in Alaska, the Secretary of the Interior specifically instructed BLM to undertake no further wilderness review, inventory, study, or consideration in Alaska (Memorandum of March 12, 1981). The Secretary was given this discretionary authority in regard to wilderness review by Section 1320 of ANILCA.

COMMENT NO. 7

The proposed Research Natural Areas at Mount Prindle and Big Windy Hot Springs should be enlarged. Designation of larger areas is necessary to protect the unique values found in those places.

REPLY

The primary purpose of Research Natural Areas is to provide areas suitable for scientific research, rather than to provide simple resource protection. The RNA sites were selected by a team of specialists who also proposed the boundaries, providing in some cases a choice of several boundary options. In the case of the proposed Mount Prindle RNA, the proposal put forth by the specialists has been adopted in its entirety. There is no value in any further enlargement.

In the case of the proposed Big Windy Hot Springs RNA, the specialists provided several boundary options, ranging from 160 acres to 12,733 acres. The smallest option was primarily to preserve the hot springs itself for study. The larger options included areas of Dall sheep habitat which could be of interest but which is not essential to scientific use of the hot springs. After internal review by BLM, it was decided that the sheep habitat was not of sufficient interest to warrant RNA designation. However, this habitat is still assured of protection through mineral closures or special stipulations.

COMMENT NO. 8

Change the boundary of the SNCA to exclude the Crooked Creek area. This is an area of extensive placer mining, and it should not be subject to any limitations on mining which may be enforced within the SNCA.

REPLY

The Proposed Plan would reopen this area to mineral entry, though miners would be subject to special stipulations designed to protect caribou. We do not believe that these stipulations would place an undue burden on mine operators.

Congress saw fit to include this area within the SNCA, and we do not think that the public would be best served by excluding it now.

COMMENT NO. 9

The impacts of mining are not evaluated fairly in the Draft EIS. Mining activity is of finite duration, and most negative impacts are corrected in a short time by nature. These negative impacts should not be regarded as permanent. Also, some effects of mining are environmentally beneficial. For example, wildlife habitat is improved by the new growth of vegetation in areas where permafrost has been thawed by mining.

REPLY

The difference between short-term and long-term effects of mining, as well as positive impacts of mining, were considered in the Final EIS. (See Chapter III.)

COMMENT NO. 10

The plans for access are inadequate. Large ORVs are necessary for transporting fuel and heavy equipment to mining claims; air transport is too expensive. Also, the use of horses should be specifically addressed.

REPLY

Some limitations on access are necessary to provide for environmental protection and to minimize user conflicts. In the Proposed Plan transportation corridors have been identified to show more clearly where improved access would be encouraged. Outside these corridors, the use of large ORVs may still be permitted for legitimate access needs, but there will be some restrictions on such use, and it will require special authorization. We believe the Proposed Plan will provide for adequate access while still maintaining environmental quality, as required by law.

The use of horses has been specifically addressed in the Proposed Plan. Horses would generally be allowed without restriction.

COMMENT NO. 11

The plan does not adequately address subsistence. Means of protecting subsistence resources and the use of those resources should be clearly defined.

REPLY

Since publication of the Draft RMP/EIS, the Alaska State Office of BLM has prepared a detailed policy statement in regard to subsistence. This policy has been incorporated into the Proposed Plan and provides clear guidance for the protection of subsistence.

COMMENT NO. 12

There should be no increase in federal land ownership associated with the SNCA, whether it be through exchange or by any other means.

REPLY

The land exchanges outside the SNCA boundaries which were proposed in the Preferred Alternative in the Draft RMP/EIS have been dropped. However, State lands within the boundaries are still identified for possible acquisition, through exchange, in the Proposed Plan. We believe it would enhance the resource management objectives of this plan if all lands within the SNCA were under a single management agency.

Detailed Letters and Replies

Letters which contain comments not addressed in the Summary of Substantive Comments are reproduced here. Those parts of the letters which do refer to comments in the Summary are referenced with the letter "S" and a number. For example, "S-4" indicates that the comment is addressed in the reply to Comment Number 4 in the Summary of Substantive Comments. Other comments are numbered and answered in this section.

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FAIRBANKS, ALASKA

SP# 20086

Roger C. Burggraf, [redacted]
~~Fairbanks Branch of the Alaska Miners Assoc.~~
Fairbanks, Alaska 99701

March 23, 1984

RE: Steese Conservation Area & White Mountains Recreational Area
Resource Management Plans and Environmental Impact Statements

The Fairbanks Branch of the Alaska Miners Association has some reservations regarding the above plans and would like to make the following general comments concerning both plans:

S-12 1) We are opposed to the land exchanges between the state and federal government as outlined in Map 2-5 of Steese National Conservation Area plan and Map 2-5 of the White Mountains Recreation Area plan. Some of these lands have high hardrock mineral potential. It is felt the state could better manage these lands for mineral development and the non-mineralized lands could be retained by the state to be utilized for the benefit of the people of Alaska.

S-2 2) Certain Special Management Areas (SMAs) have been set up under the plan. It is our understanding that these areas will be open for mineral development. We would like better clarification as to what management techniques are going to be employed to manage these areas. It is our understanding that the 3809 regulations will be more rigidly enforced in these areas and that bonding will be required. Hopefully present mining operations that are operating at a profit will not be so severely restricted that they will be forced to shut down as a result of new restrictions.

3) In respect to Limited Mining Development Zones, what are the restrictions that will apply to mining ventures currently in operation in these designated areas?

1 4) What are the view shed restrictions?

2 5) Existing RS 2477 roads should be delineated and access assured.

S-4 6) In reviewing the Mineral Terrane and Occurrence maps it was noted in some cases they were seriously deficient. The Division of Mining of the Department of Natural Resources submitted data to you for inclusion in the plan. I am submitting copies of these maps and reference data and request the the information be incorporated into both plans.

S-8 7) Under ANILCA Title 13-1038, boundary adjustments can be made deleting up to 23,000 acres from both areas under consideration. This can be done by Secretary of Interior without congressional approval. A map showing those areas the Alaska Miners Association was requesting be deleted was submitted to the Anchorage office of BLM. It is requested that consideration be given to the Association's request.

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Comments on the White Mountains Recreation Area:

1) Mineral Terranes Map - Area Plan is deficient as noted by the Division of Mining Department of Natural Resources submittal. See attached maps and references compiled by Jeffrey Burton, Mining Engineer, Division of Mining. Please incorporate the data presented in your final plan.

2) During the workshop hearings it was mentioned under Alternative E that 71% of the land would be available for leasing. Please refer to the attached Mineral Occurrence and Mineral Terrane overlay. When overlaid on other maps (see maps 2-9, 2-10, 3-1,3-2,3-6) which reflect restricted or closed to mineral entry land uses in the plan, over 65% of the mineral ground will be closed to mineral leasing and development. Was this the intent of congress to lock up our nation's "crown jewels" -- our mineral resources?

3) The plan does not state what type of mineral leasing will be made available. The Alaska Miners Association has given input as to our preference to a discovery/location type of lease. It is hoped it will allow the small miner to operate within the confines of any leasing system. What are lease stipulation guidelines?

4) The Fairbanks Branch of the Alaska Miners Association is opposed to the proposal in Map 2-5, land to be acquired through exchange. The land in question is mineralized and it is felt the state can better manage these lands for mineral development, and for the benefit of the Alaskan people.

5) Map 2-10 shows a special Management Area for Wildlife. What special management criteria will be utilized in this area? Will it be so restrictive as to prevent mining of ore deposits located in any areas not closed to leasing?

6) With respect to Limited Mineral Development Zones (LMDZ), what are the restrictions that apply to mining ventures in operation in these designated areas? What new regulations will be put into effect?

7) The fourth paragraph of page 65 states that the water quality of Beaver Creek is very good. The third sentence refers to "suspended sediment levels are low to moderate, with transport rates of 10 to 300 mg/l of sediment under natural conditions." If the above statement is correct, the water quality should be rated as poor.

8) Page 89 does not address the long term effects of mining. The study should reflect that there are benefits that should be considered.

There are numerous other comments I would like to address in the plan, but time does not permit.

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Comments on the Steese Conservation Area:E

S-4 1) Mineral Terrane Map Area Plan is deficient as noted by the Division of Mines Alaska Department of Natural Resources. See attached maps and references compiled by Jeffrey Burton. Please incorporate the data presented in your final plan.

S-12 2) The Fairbanks Branch of the Alaska Miners Association is opposed to the land exchange outlined in Map 2-5. Some of these lands have high hardrock mineral potential. It is felt the state can better manage these lands for mineral development and that the non-mineralized lands being considered in the exchange should be retained by the state for the benefit of the people of Alaska.

S-8 3) Please refer to Map 2-5, a parcel of land shown in red. Under ANILCA, boundary changes up to 23,000 acres can be made without approval of congress by the Secretary of Interior. A map was previously submitted to BLM by AMA requesting the deletion of the area shown. The east boundary of the North Steese Conservation area followed the ridge line until it reached the area shown in red on the map. It then dropped down to include a portion of Crooked Creek, a heavily mined placer stream. This area is heavily mineralized and it is requested that the boundary be adjusted back up to the ridge line where it belongs.

3 4) Alternative E states that 94% of the Steese Conservation Area will be open to mineral entry. We have concerns with respect to Map 2-11 Wildlife Alternative E -- special management areas. There is no criteria mentioned in the plan for the management of these areas. If you use the overlays provided with my testimony ("North Steese Conservation Area" and "South Steese Conservation Area") you will note that approximately 70% of the Mineral Occurrence and Mineral Terrane lands fall under Special Management Areas. We need clarification as to what management techniques are going to be employed in managing these areas. If they are too restricitve these mineral lands may be locked up forever. Regulations must be promulgated that will allow these highly mineralized areas to be developed for the benefit of mankind.

Points we like about the SCA Plan:

1) 94% of the area will be open fo mineral location.
2) Existing 2477's will be recognized.
3) Development of improved access routes to mining ground to be encouraged so as to minimize ecological damage to the surface.
4) Allowance of ORV's 1500 lbs or less to be used in the area. (We would like to see ORV's over 1500 lbs allowed, provided their track or wheel size would provide sufficient flotation to not damage the surface.)

The plan does not satisfy all of the mining industries' needs. The Fairbanks Branch of the Alaska Miners Association has some real concerns regarding the implementation of the plan. However, we feel an effort has been made to

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balance the needs of all parties. I might add that the plan does not satisfy any one group, and I doubt if it ever will.

We in the industry consider ANILCA with respect to the Steese Conservation Area and White Mountains Recreation Plan as a National Tragedy. It took one of the most highly mineralized areas in the state of Alaska and has severely restricted the mineral development of the lands encompassed in the above areas.

It is hoped that the "crown jewels" of this nation (its minerals) will not be locked up by unduly restrictive regulations which prevent their orderly extraction. Mining provides jobs and resources needed by this nation. We in the interior of Alaska depend on mining to support our communities and provide productive livelihoods for our people.

REPLY TO LETTER NO. 1

1. The viewshed of the Wild River would be managed to meet the objectives of Visual Resource Management Class II. Class II management allows changes that may be seen in the characteristic landscape, but such changes should not attract attention. Specific restrictions would have to be developed on a case by case basis since they would depend on the nature of the activity.

2. This will require cooperative action between BLM and the State of Alaska to identify such rights-of-way and determine the responsibilities and authorities associated with them. This is covered in Part D, the Support section of the Proposed Plan.

3. Regulatory requirements for mining are clearly defined in the Multiple Use Management Prescription section of the Proposed Plan.

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National Audubon Society
ALASKA REGIONAL OFFICE
308 G STREET, SUITE 219, ANCHORAGE, AK 99501 (907) 276-7034

March 30, 1984

Mike Green
Yukon Area Manager
Attn: Jeff Scott, Planning Team Leader
Bureau of Land Management
P.O. Box 1150
Fairbanks, AK 99707

Dear Mr. Green:

These are comments of the National Audubon Society on both the Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the Steese National Conservation Area, and the Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the White Mountains National Recreation Area. Although we greatly appreciate the hard work that BLM staff professionals put into development of the draft plans, we find both seriously deficient in numerous respects. This is particularly disappointing since the White Mountain and Steese areas were the only two national conservation system units assigned to the BLM by Congress in the Alaska National Interest Lands Conservation Act of 1980. Unfortunately, the plans as drafted confirm the reasons conservationists were reluctant to have national interest conservation lands placed under BLM for protection and management.

GENERAL COMMENTS

S-1 The title of the RMP's are very misleading in that the reader is led to believe that "Draft Environmental Impact Statements (EIS)" are included, when in fact they are not. Although alternatives to BLM's preferred alternatives along with some environmental consequences were evaluated, the documents do not meet the requirements of an EIS. The National Environmental Policy Act (NEPA) requires a much more thorough analysis including sections on mitigating measures of the proposed action, unavoidable adverse environmental impacts, relationship between local short term use of the environment and maintenance and enhancement of long-term productivity, and irreversible and irretrievable commitments. Furthermore, the EIS's fail to give emphasis to the primary purposes for which the two areas were established by Congress, i.e., public recreation and resource conservation, and to include vital information concerning important wildlife species such as caribou, Dall sheep, bears and furbearers.

The National Audubon Society strongly objects to BLM's preferred management alternative (E) for the following basic reasons:

1) Wild country (wilderness) related public recreation values will be significantly impaired by liberal mining policies and off-road vehicle (ORV) use. In fact, there are no provisions for providing true primitive recreation since ORV use will be permitted throughout the units.

2) Wilderness values of the units are totally ignored and no effort made to determine the suitability or non-suitability for inclusion in the National Wilderness Preservation System.

S-1, S-3, S-5

3) No commitment is made to properly implement, monitor and enforce regulations for activities associated with right-of-ways, mining, and ORV operation.

4. Degradation of water quality will be permitted to expedite mining and other development activities. This will result in potentially serious adverse impacts on freshwater fisheries and related wild river values.

5) Nationally significant wildlife resources including caribou, Dall sheep, grizzly bears, wolves, and furbearers will be subjected to unnecessary disturbance from motorized recreation, and intensifying harvest pressures because of liberal access policies, and growing numbers of hunters and trappers.

PREFERRED NATIONAL CONSERVATION INTEREST ALTERNATIVE

The BLM is urged to redraft the two RMP's giving emphasis to protection and management of "national interest" resource conservation and public recreation values rather than expediting mining and other developments that will threaten such values. This will require that short-term exploitive interests be rejected in favor of long-term national conservation interests as was the intent of Congress.

Major components of a preferred national interest alternative should include the following:

1) Close the two units to further locatable mineral exploration and development and patent under the United States mining laws. Conduct thorough mineral inventories before giving consideration to reopening the units to mineral entry.

Adopt reasonable regulations for all mining activities to "assure that mining will, to the maximum (emphasis added) extent practicable, be consistent with protection of the scenic, scientific, cultural and other resources of the area....."

2) Protect wild and scenic values of Birch and Beaver Creek. This will require strict control of mining activities in the headwaters of Beaver Creek and motorized access to the wild river corridors.

1

3) Spell out in detail measures that will be required to protect water quality and quantity.

4) Conduct thorough "wilderness reviews" and develop recommendations as to the suitability or non-suitability of all lands in the two units for inclusion in the National Wilderness Preservation System.

AMERICANS COMMITTED TO CONSERVATION

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5) Commit to conserving the natural diversity of fish and wildlife populations and habitats in cooperation with the U.S. Fish and Wildlife Service and Alaska Department of Fish and Game.

Special consideration should be given to development of management strategies for protection of the Fortymile and Porcupine caribou herds and their ranges within the Steese NCA.

6) Permit only customary and traditional motorized access and restrict to designated routes and locations under reasonable regulations. Unrestricted motorized access should be prohibited! 1

7) Adopt the policy of encouraging "dispersed, low density public recreation" that is wild country oriented in keeping with the primitive (wilderness) character of the units.

8) Apply the "minimal tool" concept in management. Prescribed burning and wildfire should be preferred tools in habitat projects. No administrative sites should be developed for the comfort and convenience of the managers.

9) Redefine the boundaries of "research natural areas" to include all essential lands.

10) Develop interpretive and public education programs that give emphasis to national interest public recreation values.

11) Encourage scientific research, conservation education, and land management training.

Your consideration of these comments is greatly appreciated.

Sincerely,

David R. Cline

David R. Cline
Regional Vice President

cc: Dr. Russell W. Peterson, National Audubon Society
Bob Putz, U.S. Fish and Wildlife Service
Roger Contor, National Park Service
Don Collinsworth, AK Dept. of Fish and Game
Anchorage Audubon Society, Arctic Audubon Society
Kenai Peninsula Audubon Society
Kodiak Audubon Society
Juneau Audubon Society
Other Alaska Conservation Organizations

BUREAU OF LAND MANAGEMENT
ALASKA STATE OFFICE
222 W. 7th Ave. #13
ANCHORAGE, ALASKA

REPLY TO LETTER NO. 2

1. All of the items in your suggested alternative have been considered in one or more of the alternatives in the EIS. Items 2, 3, 5, and 10 have been accommodated in the Proposed Plan. The other items have been dealt with as follows.

   Item 1: Complete mineral closures were considered in Alternative A. Based on the analysis of impacts in Chapter III, it was decided that some mineral development is justified. Provisions for mineral inventory and regulations of mining have been included in the Proposed Plan.

   Item 4: Wilderness resources and possible impacts to those resources are discussed in Chapters II and III. However, recommendations for inclusion of the units in the National Wilderness Preservation System would be contrary to Departmental policy.

   Item 6: The Proposed Plan would close about 11 percent of the SNCA to unrestricted motorized access. In other areas, use of ORVs would be monitored, and further restrictions imposed if necessary.

   Item 7: The Proposed Plan would designate some areas for primitive recreation where dispersed, low-density, public recreation would be encouraged. There would be other areas where higher levels of use would be facilitated through improved access. We have tried to strike a reasonable balance between the different types of recreational use, based on public demand and resource capability.

   Item 8: Prescribed burning is our preferred tool for habitat management. No administrative sites are planned.

   Item 9: We believe all essential lands are included in the RNAs. Please see the reply to Comment No. 7 under the Summary of Substantive Comments.

   Item 11: Congressional guidance is that the plan is to provide information concerning resources, allowed uses, and other data about the SNCA. The Proposed Plan does this.

Citizens' Advisory Commission on Federal Areas

515 Seventh Avenue
Suite 310
Fairbanks, Alaska 99701
(907) 456-2012

April 2, 1984

Mike Green
Yukon Area Manager
Bureau of Land Management
P.O. Box 1150
Fairbanks, Alaska 99707

Dear Mike,

The Citizens' Advisory Commission on Federal Areas has completed its review of the Draft Resource Management Plans (RMP) and Environmental Imapact Statements for the Steese National Conservation Area and The White Mountains National Recreation Area.

The Commission has followed the development of the RMP's for each of these areas since planning began in 1982. The time and effort spent by the BLM planning staff in developing the Management Situation Analyses and the Land Use Plan Alternatives is evident. Unfortunately, the current draft RMP's do not reflect the planning efforts that preceded them and are deficient in a number of areas.

Management of these two areas presents a number of problems which are a result of the the multiple-use concept. Both the Steese NCA and the White Mountains NRA contain a wide range of resources and values. Use of these, if not carefully monitored, will result in considerable conflict between user groups.

Both the Steese NCA and the White Mountains NRA encompass highly mineralized zones containing deposits of gold, tungsten, lead, zinc and uranium. Mineral exploration and extraction have occurred in this region, with varying degrees of intensity, since the late 19th century. Placer gold mines in the district contribute significantly to the economy of Fairbanks. There are undeveloped mineral deposits in both areas which have the potential to contribute at even greater levels.

In terms of recreation, both of these areas offer a wide range of opportunities. Becaues of their proximity to Fairbanks, they are used extensively for hiking, camping, canoeing, hunting and fishing. Portions of both areas are valued for the wilderness experiences which they offer. Birch Creek and Beaver Creek Wild and Scenic Rivers are both popular sources of recreation. Additionally, the areas provide considerable opportunities for motorized recreation both summer and winter.

Sections 401, 402, 403, 404 and 1312 of ANILCA contain the mandate under which the Bureau of Land Management will manage these two areas. The language contained in these sections clearly indicate that more active and specific management plans than those proposed for the two areas will be needed in order to accomodate all allowable uses and at the same time comply with the intent of the legislation.

The Commission believes that mineral exploration and development can coexist with recreational and wildlife values with a minimum of conflict provided the areas are actively managed. All existing uses can continue if the final plans are developed with more specific management directions than those currently contained in the draft plans.

GENERAL COMMENTS

The lack of adequate definitions for and discussion of the management implications of such terms as: Limited Mineral Development Zone, Research Natural Area, Special Management Area, Habitat Management Plan and Areas of Critical Environmental Concern make it extremely difficult to fully evaluate the proposed management alternatives.

For example, each plan has a very brief explanation of what constitutes a Special Management Area (SMA), but questions remain which need to be answered before the final plans are implemented. Although it is understood that each SMA will be developed individually, there must be provisions or guidelines that will be common to all.

1 An explanation of what is involved in the development of a Habitat Management Plan (HMP) should be provided. Would a separate environmental impact statement or assessment be required? Is there a timeframe for developing such a plan? What will be the cost and who will be responsible for financing any special studies if some form of development is planned? In the case of road construction, will standards and special requirements make them cost prohibitive? Can surface reclamation standards exceed those in 43 CFR 3809?

2 The implications of a Limited Mineral Development Zone are not adequately discussed. How will the development of valid existing claims within the zone be affected? Will there be special restrictions on mineral activity in such a zone? Is further mineral exploration to be permitted within the zone? Again, those are questions which should be answered in the final documents.

Research Natural Areas (RNA) are discussed in more detail, but the characteristics and values of the proposed areas should have been included in the appendices of each plan. Because of certain restrictions which will apply within a RNA, one or more resource

use will be restricted in favor of another. Insufficient information in the plans on these proposed RNA's makes it difficult to evaluate their importance in terms of the various resources they contain.

In the final plans each of the terms listed above should be dealt with in a seperate appendix which discusses each in terms of how guidelines will be developed and which also outlines the implementation and management of those guidelines.

3 An appendix should also be included which lists all applicable statutes and regulations under which the Steese and White Mountain areas will be managed.

ACCESS

In the sections of the plans dealing with access it is mentioned that the State of Alaska has claimed some trails as public rights-of-way under Revised Staute 2477. Those which are claimed by the State should be listed and shown on maps in the final plans.

4 Existing access points to the Birch and Beaver Creek Wild and Scenic Rivers and other roads, trails and airstrips which are available for public use should also be listed and identified on the maps.

Valid access needs which can not be accomodated in a mining plan of operations are covered under Title XI of ANILCA and 43 CFR Part 36. These cover access needs in addition to those necessary for mineral development purposes and should be addressed in the final plans.

LAND STATUS

The maps in the plans do not show the location of all non-federal inholdings and should be updated to do so. The maps for both the Steese NCA and the White Mountains NRA should also show the areas in which mining claims are concentrated and where mining is being actively pursued. This should be possible without having to show each individual claim.

Information on the locations of private inholdings and where mining activity is concentrated would be helpful in evaluating how the different alternatives and land-use classifications will affect each of these.

5

There are statements in both of the plans which indicate that non-federal lands or interests in lands within the river corridors of Birch and Beaver Creeks will be acquired whenever possible. These statements are contradictory to both of the final river management plans which state that the final river corridor boundaries do not include any non-federal lands.

Section 6(b) of the Wild and Scenic Rivers Act also states that if 50% of the entire acreage within a federally administered wild and scenic river is owned by the Federal government the Secretary of Interior may not acquire fee title to any lands by condemnation under authority of the Act. Any acquisition of a private inholding would have to be with the full consent of the owner.

Commission staff has determined from attending public meetings and talking with interested parties about the proposed land exchanges which would involve State lands that there is strong opposition from the mining community to the proposals. There is a general feeling that the opportunity for mineral development will remain greater if the land remains under State ownership.

In June 1983, there was a Notice of Intent for Proposed Exchange of Lands signed by the State of Alaska and the US Dpartment of the Interior. This proposal includes some of the same lands that are identified in the draft RMP for the Steese NCA. What is the current status of that exchange and will these proposals be pursued seperately or in conjunction with the 1983 proposal?

MINERALS MANAGEMENT

In both plans under this section it states that mineral claims examination would be initiated if the the Area Manager determined that the land was needed for a federal program. What types of programs may be involved here?

If, upon completion of a mineral exam the claim is determined to be valid, but may be in conflict with a proposed federal program, how would this be resolved? Clarification is needed on this issue.

Alternatives in the two plans call for varying levels of enforcement of the surface management regulations in 43 CFR 3809. Are there established guidelines for different levels of enforcement under these regulations? If not, how will the different levels of enforcement be decided?

6 There is concern by different groups regarding the 3809 regulations and how they will be enforced. The mining community is concerned about the levels of enforcement of 3809 regulations. There is the feeling that if the regulations are too strictly enforced and stringent reclamation requirements are imposed upon mine operators, the excessive cost of compliance will prevent miners from operating.

The environmental community is equally concerned that the regulations will not be adequately enforced due to budget constraints. There is concern that too little enforcement will result in excessive environmental damage and visual impacts.

Both groups have legitimate concerns which have not been adequately addressed by the draft plans. Does the BLM in Alaska have money budgeted for the enforcement of these regulations?

Will funding be adequate to manage at the levels of enforcement which are necessary to meet the regulatory and statutory requirements without being excessively restrictive?

There is a balance that must be achieved that will allow economic operation of mining claims and continuation of mining activity while at the same time ensuring that there is adequate protection for other resource values. Because of uncertainties about available funds and lack of detail in the plans it is unclear whether or not the plans in their present form can achieve this balance.

MINERAL LEASING

One of the major points of disagreement between different groups concerned with the White Mountains NRA is the subject of mineral leasing. The primary cause of these differences is the fact that some of the most favorable mineral terrain is also highly valued for its recreational opportunities and wildlife habitat values. Again, the potential for conflict between different uses is high and will require a more intensive level of management than is outlined in the draft plan.

The absence of any regulations makes it difficult to assess the proposal to permit leasing of minerals in the White Mountains NRA. It is understood that at this time the Wasnington office of the BLM is responsible for the development of these regulations. Hopefully these regulations can be prepared and approved before the final RMP for the White Mountain NRA is implemented.

It is important that the public input received on the proposed leasing regulations developed by the Fairbanks District Office in 1983 be incorporated into any regulations promulgated by the BLM. Concern has been expressed that mineral leasing regulations could prevent the small miner from operating if bonding levels are exorbitant or if development guidelines are too restrictive.

BIG WINDY HOT SPRINGS RNA

The Research Natural Area proposed in the southern Steese is also an area where conflicting resource values could be a source of diffculty from a management standpoint. The undeveloped hot springs and the dall sheep population in the area are of considerable value for research purposes. Within the same region, however, are tungsten occurences which appear to have considerable economic potential. More exploratory work will be necessary before the extent of these deposits can be fully defined. The potential for conflict is obvious.

The original proposal for the RNA in the Management Situation Analysis contained four options for the amount of acreage to be included in the area. Size ranged from a core of 160 acres to a maximum of 12,733 acres. There were two intermediate sizes of 4,480 and 8,560 acres.

In the alternatives listed in the draft RMP for the Steese NCA, there are only two options: one of 160 acres for alternatives D & E and one of 12,733 for alternatives B & C.

S-7 A medium range option rather than the two proposed options would seem more appropriate for this area because it would allow for development of any economically viable mineral properties, and at the same time offer adequate protection for both the hot springs and the dall sheep population. An intermediate sized RNA would provide greater opportunity for a more balanced multiple-use alternative in this area.

RECOMMENDATION

In each stage of the the development of the RMP's for the Steese NCA and the White Mountains NRA, the BLM has provided continuous opportunity for public input and participation into the planning process. The Commission would like to suggest that this policy continue as the final plans are developed.

Commission staff has discussed the draft plans with representatives of various groups and heard testimony and discussion at numerous public meetings. What has come to light is that there has been little public endorsement of the proposed alternatives for either plan from members of any group. It seems evident that the BLM will have to make extensive revisions before final plans can be adopted.

One method for accomplishing this task could be the formation of an ad hoc group representative of the various user groups in the Steese NCA and the White Mountain NRA. Possibly some members of the Fairbanks District Advisory Council could participate in the group. The sole function of the group would be to help in developing the RMP's for these two areas.

After formal written comments are received and compiled into a workable format by the BLM planning staff, the work group could participate in a series of sessions with the planning staff. This may be helpful in achieving solutions to the problems identified and in developing management programs and guidelines which are more responsive to the public's needs than those presently proposed.

The Commission would like to see management plans developed that provide well-balanced, multiple-use opportunities available on a continuing basis. The Commission will continue its interest and involvement in the Steese NCA and the White Mountains NRA.

Sincerely,

Stan Leaphart
for Bettye Fahrenkamp, Chairman
Alaska State Senator

REPLY TO LETTER NO. 3

1. These actions and other actions necessary to implement the plan are described in the Implementation section of the Proposed Plan.

2. These terms are defined in the Glossary.

3. Laws and regulations which are most important in the management of the SNCA, such as ANILCA and 43 CFR 3809, are referenced where appropriate. A complete listing of all laws and all regulations which might be applied to all possible actions would be extremely lengthy and would not be appropriate.

4. The Support section of the Proposed Plan outlines a joint federal-State effort to identify rights-of-way claimed under R.S. 2477 and clarify the question of access. The Proposed Plan also contains transportation corridors, which could be used for access for any purpose.

5. The scale of the maps published in the plans makes it impossible to show all non-federal inholdings, some of which are only a few acres in size. Similarly, mining claims would also be extremely difficult to depict. Detailed maps and land status plats are available in the Fairbanks District Office for any individual desiring such information. We believe Chapter III adequately discusses the impacts of the different alternatives on mining claims.

The River Management Plan has been incorporated into the Proposed Plan as the management prescription for the river corridor, thus eliminating the inconsistency you have identified.

We are aware of the objections to land exchanges, and the Proposed Plan reflects these feelings. All exchanges outside the boundaries of the SNCA have been dropped. Exchanges for State lands within the boundaries will be pursued. Some of these lands were identified in the June, 1983, Notice of Intent. There are several complicating factors extraneous to the plan involved in that exchange. Questions about current status should be directed to our Yukon Resource Area Office.

6. An examination could be initiated if the land was needed for any of the actions outlined in the plan, e.g., construction of recreation facilities. However, such actions are usually taken as a last resort, and we do not think it likely that BLM will initiate many examinations because of program needs.

The Proposed Plan is more specific than the draft Preferred Alternative about the implementation of 43 CFR 3809. We believe that the plan will achieve the balance between mining and resource protection that you refer to, and we also expect to receive adequate funds to meet the enforcement needs which are identified in this plan.

Northern Alaska Environmental Center

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FAIRBANKS, ALASKA 99701
(907) 452 5021

March 28, 1984

Mr. Mike Green
Yukon Area Manager-BLM
P.O. Box 1150
Fairbanks, Alaska 99707

Dear Mr. Green,

The Northern Alaska Environmental Center thanks the BLM for the opportunity to submit these additional comments on the White Mountains National Recreation Area and the Steese National Conservation Area.

While there are aspects of these plans that we find little or no problem with and, in fact, support; the inadequacies are so voluminous and objectionable it is difficult not to dwell on them. We do feel that the planning staff has, in many cases, found themselves between the proverbial rock and the hard spot. Good planning is difficult or impossible if the planners are restrained by BLM policy. Please know that our criticisms and suggestions on these plans are in no way intended to reflect upon the individual planners who have persevered under obviously trying circumstances.

We appreciate the attempts to provide increased high quality recreational opportunities, especially in the White Mountains NRA. These include campgrounds, hiking trails, cabins, and river access. Unfortunately, many of these honest attempts are overshadowed by the dictatorial constraints which will very likely create undo conflicts over these recreational resources. An example of what we mean would be the creation of hiking trails that are "closed" to ORV's in an area otherwise totally open to recreational vehicles while providing little or no money for regulatory enforcement. It would be difficult to believe that the ORV users will not tend to operate their vehicles on the trails. A well-meaning attempt by the planning staff was turned into a management nightmare by the unreasonable restraints imposed apparantly by the District Manager.

S·5 One of our major objections to these draft plans is the lack of <u>any</u> primitive non-motorized recreation. There is documentation that ORV use has the potential for severe impacts to plant communities, wildlife habitat, wetlands, riparian zones, and wildlife. A recent study by the National Park Service over proposed regulatory changes in motorized access to some Alaska National Parks includes an expansive bibliography. A 1979 document published by the Council on Environmental Quality (Off-Road Vehicles on Public Land) examines the controversy and provides a fairly expansive bibliography. Neither of the BLM draft plans mentions even a literature search concerning the potential adverse impacts of the unrestricted use of off-road vehicles under 1500 pounds.

According to CEQ: "the off-road vehicle problem is one of the most serious public land use problems that we face." They go on to say that "Positive policy commitments by the federal land management agencies are essential." The evidence indicates that ORV use easily becomes ORV abuse. Once such abuse has become a "problem" it is not so easily mitigated. We would contend that one of the major goals of planning is to prevent resource damage and resource conflicts <u>before</u> they occur. These draft plans would open up the 2.2 million acres of both conservation units to the unlimited use of off-road vehicles under 1500 pounds without <u>any</u> discussion of the potential adverse effects of such a management action nor of any specific mitigation should such resource damage become a problem.

We are also concerned that by opening the entirety of both units to off-road vehicles BLM is effectively locking out the non-motorized recreationists. It is a well-established fact that non-motorized recreationists retreat from an area used by motor vehicles. Non-motorized hunters can not compete for a limited wildlife resource against an army of Honda three-wheelers. We are concerned that BLM is not providing a full recreational spectrum especially in the White Mountains, specifically designated as a National Recreation Area. It was clearly not the Congressional intent, in designating the White Mountains as an NRA, to lock out the non-motorized recreationists. We would contend that surely there is room in the White Mountains NRA/Steese NCA for <u>both</u> motorized and non-motorized recreation.

There are indications by wildlife biologists that much of the large mammal resource of the areas are very thinly dispersed. Neither draft plan addresses how motorized hunting and/or harassment would effect that resource. There are many individuals who would maintain that some species can literally be "shot out" of some of these areas.

S·2 While we applaud the identification of "special management areas" and "limited mineral development zones" we question what these designations really indicate? The potential adverse effects of increased mineral development and off-road vehicle abuse is significant. It is impossible to determine if these SMA's and LMDZ's are valid without specific definitions and guidelines to evaluate.

S·1 The lack of specific information concerning the mitigation of adverse impacts on wildlife is disconcerting. It is difficult enough to make some of these decisions <u>with</u> the information at hand and nearly impossible to do so without the information. The public was not given sufficient information to make informed decisions on these trade-offs. Even the public workshops failed to provide the specifics for these mitigation efforts. One BLM staff person mentioned "intensive" management of caribou as a possible mitigation for lost habitat. A check with ADF&G causes one to question whether such a possibility even exists. We fail to understand how such generic actions as "controlled burns" will mitigate a loss of fish habitat resulting from a deterioration of water quality in Beaver Creek?

S·3 We have little doubt that the proposed level of mineral development in the White Mountains National Recreation Area will cause "significant adverse effects" to Beaver Creek, a National Wild and Scenic River. We are astounded that, by BLM admission, the preferred alternative for the Steese NCA has the "highest potential for adverse effects on wildlife." These actions would clearly violate Section 1312 and Section 402 of ANILCA.

We recommend the following specific changes to the draft plans:

<u>WHITE MOUNTAINS NATIONAL RECREATION AREA</u>

1. Change the off-road vehicle section to prohibit ORV use in all areas designated as "primitive" or "semi-primitive."

White Mountains NRA continued

2. Eliminate the provision for an airstrip at Victoria Creek.
3. Use the minerals management section of alternative "B"to:
   a. convert existing claims to mineral leases
   b. continue existing mineral witndrawals for approximately 65% of the NRA.
   c. restrict leasing of locatable minerals to existing claims.
4. Expand the size of all Research and Natural Areas.

STEESE NATIONAL CONSERVATION AREA

1. We support a modified alternative "C".
2. The northern unit of SNCA should be designated "semi-primitive, non-motorized." The southwest corner of the southern unit should be designated "primitive, non-motorized." The northern portion of the southern unit can remain motorized as in the plan. Use of all ORV's should be eliminated from all areas designated as "primitive or "semi-primitive."
3. There should be no re-recording of unperfected mining claims inside of an "LMDZ". Surface reclamation of all mining operations should be required as well as adequate bonding to ensure compliance. There should be no oil or gas leasing in a "LMDZ." 1
4. Special wildlife management areas should correspond to alternative "E" with specific limitations on mining and surface reclamation to protect wildlife.
5. All mining operations must comply with Alaska DEC water quality standards. All Birch Creek waters must require maintaining or improving of existing water quality.
6. The Mt. Prindle and Big Windy Hot Springs Research Natural Areas should be enlarged to the original proposals. The Big Windy Hot Springs RNA should be enlarged to the full 12,00 acres in order to adequately protect the fragile Dall sheep habitat.

These recommendations are not all inclusive. We would prefer to see a complete re-write of both management plans. They are inadequate in scope and content. they fail to provide specific direction or information required to make reasonable decision choices, they fail to provide a full-range of alternatives, they fail to examine the potential adverse effects of a host of management actions, they are poorly written and reflect a severe shortcoming of the ability of BLM to plan for multiple use. We all expected much better. The disappointment is contagious as well as epidemic.

Sincerely;

Robert D. Warren
Executive Director

REPLY TO LETTER NO. 4

1. Each of the items in your proposal was considered in one or more of the alternatives. Item 5 was wholly incorporated into the Proposed Plan. Items 2 and 3 were partially incorporated: part of the northern unit would be designated primitive, ORVs would be excluded from all primitive areas, and surface reclamation requirements are included. Item 4 is not necessary, since the Proposed Plan leaves areas of crucial importance to wildlife closed to mineral entry and places special stipulations on mining operations in caribou range. In regard to Item 6, the proposal for the Mount Prindle RNA has always been the same; there is no larger "original proposal." Big Windy Hot Springs RNA was not enlarged for the reasons given in the reply to Comment No. 7 in the Summary of Substantive Comments.

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

CSU Planning Office
333 Raspberry Road
Anchorage, AK 99502
Phone: 267-2215

30 March 1984

DER

Carl D. Johnson, District Manager
Fairbanks District Office
Bureau of Land Management
P.O. Box 1150
Fairbanks, AK 99707

Dear Mr. Carl Johnson:

The State Conservation System Units (CSU) Contacts have completed their review of the Steese National Conservation Area (SNCA) and White Mountains National Recreation Area (WMNRA) draft Resource Management Plans and Enviroumental Impact Statements (EIS). State Contacts compliment the Bureau of Land Management (BLM) for conducting workshops during the development of these plans to discuss problems and concerns in the Areas. We perceive the review of these draft plans as a continuation of the cooperative spirit exemplified by the workshops. We are, however, disappointed with the products developed from these workshops. Although the format of the plans is good, their content lacks substance and often appears to be contrary to legal mandates. Because of the major deficiencies in the documents, State CSU Contacts are refraining from choosing a preferred alternative until these problems are corrected.

We are providing extensive comments to assist you and your staff in understanding our concerns and rectifying them. Due to the similarity in the issues involved and the document formats, we have consolidated our comments as much as possible. Where appropriate, comments specific to either of the documents are identified. These comments are divided into five major categories: 1) Compliance of the plans to the requirements of the Alaska National Interest Lands Conservation Act (ANILCA) and the National Environmental Policy Act (NEPA), 2) Impacts of proposed alternatives on water quality, 3) Socioeconomic impacts of proposed alternatives, 4) Impacts of proposed alternatives on wildlife, and 5) Specific comments.

1) Compliance to ANILCA and NEPA

Both documents are seriously deficient in meeting the letter and intent of ANILCA and other pertinent legislation (i.e., NEPA).

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It appears that the BLM has elected to promote mineral development to an extent that is in conflict with the management goals legislated in ANILCA.

These documents fail to satisfy the guidelines set by the federal government for compliance with NEPA. In Volume 46, No. 55 of the Federal Register, the Council on Environmental Quality (CEQ) published a discussion of the 40 most-asked questions about NEPA regulations. The following points in that summary are pertinent to the SNCA and WMNRA documents.

1 a) On page 18026 of the referenced Federal Register, the CEQ states that the range of alternatives in an environmental document must include "all reasonable alternatives, which must be rigorously explored and objectively evaluated..." and on page 18027 states that "a reasonable number of examples covering the full spectrum of alternatives, must be analyzed and compared in the EIS." (emphasis in original). The SNCA and WMNRA documents fail in this regard due to the linkage of several of the variables presented in successively intensive alternatives. For example, in order to retain a primitive recreation scenario, one must accept widespread closures to mineral development. Conversely, if mining is allowed to continue in areas other than existing claims, the plans suggest that a fully developed, intensive recreation situation must be allowed. Many local people, including miners and conservationists, feel that the intensity of development of these resources can operate independently, to some extent, especially given the potential to zone areas of high value for either (or both) resources. The BLM's method of linking the development level of these activities in successive alternatives effectively prevents them from considering the full mix of management options.

S-3 b) The CEQ defines the "agency's preferred action" as "the alternative which the agency believes would fulfill its statutory mission and responsibilities giving consideration to economic, environmental, technical, and other factors." The ANILCA established some unique conditions regarding the management of these areas. For SNCA, there is language requiring the maintenance of environmental quality, and the special value of caribou habitat and Birch Creek (Sections 401 and 402). For the WMNRA, ANILCA requires provisions for public recreation benefits and conservation of natural resources while allowing only such developments that will "promote, or are compatible with, or do not significantly impair public recreation and conservation" (Sections 403 and 1312). In light of this language it is questionable if BLM has met the NEPA requirement in its preferred alternatives. In the SNCA, the level of mineral entry and development outlined in the preferred alternative is expected to negatively affect caribou habitat and further degrade water

quality problems in Birch Creek. In the WMNRA, BLM has gone to great lengths to open as much of the area as possible to mineral entry, leasing or development, potentially conflicting with the ANILCA sections cited above. Any development must be managed to minimize impacts and adverse effects on recreation and wildlife habitat and not greatly alter the natural character of the environment or disturb important wildlife habitat.

S-3 c) While the identification of the environmentally preferred alternative is not required until the stage of writing a Record of Decision, it is clearly implied that the BLM has decided to choose an option other than that which is environmentally preferable. This decision appears to conflict with the legislation creating these Areas.

S-1 d) Section 1508.8(b) of NEPA requires that an EIS identify all the indirect effects that are known and make a good faith effort to explain the effects that are not known, but are reasonably foreseeable. While these EIS documents make general reference to such impacts, the lack of possible mitigation suggests BLM is not meeting the CEQ demands (Page 18031 ibid.), fulfilling its responsibility to make an informed judgement and is ignoring "these uncertain, but probable, effects of its decisions."

S-1 e) One of the greatest shortcomings of the SNCA and WMNRA documents is the treatment of mitigation. "Once the proposal itself is considered as a whole to have significant effects, all of its specific effects on the environment (whether or not "significant") must be considered, and mitigation measures must be developed where it is feasible to do so." (emphasis added) (ibid., Page 18031). Thus, it is not satisfactory merely to infer that mitigation will take place and solve impact problems (as the SNCA and WMNRA documents do), but the measures to be used must be developed and presented for review in the EIS. On the other hand, if it is not feasible to develop such mitigation, then it is not reasonable to expect mitigation to be effective at lessening impacts. In view of the legislative language in the case of these Areas, such a situation should cause BLM to seek a preferred alternative more in keeping with the intent of Congress.

2 In addition to the requirement to develop mitigation, the CEQ directs that in order "to ensure that environmental effects of a proposed action are fairly assessed, the probability of the mitigation measures being implemented must also be discussed" (emphasis added). The CEQ later states that "If there is a history of non-enforcement or opposition to such measures, the EIS and Record of Decision

should acknowledge [it]..." (ibid, page 18032). These statements seem to be tailored to BLM's reliance upon the 43 CFR 3809 Surface Management Regulations, which are the only specific mitigation measures referenced in the EIS's. To the best of our knowledge, BLM has not actively enforced these regulations in the past; an explanation of whether and how things will be different in these Areas in the future is definitely warranted, especially in light of traditional budget problems.

3 f) The NEPA requires that, in cases where uncertainty exists as to impacts to the environment, a worst case analysis should be performed. Given the inadequacy of the mitigation sections of the EIS's, and the uncertainty of the effects of potential activities resulting from the preferred alternatives upon habitats for "featured" species, such an analysis is warranted, but not included, in the draft documents. For example, there is the possibility for portions of these areas to become unusable for caribou and grizzlies and for fisheries habitat and recreation values to be degraded.

4 g) Finally, the documents fail to satisfy requirements of ANILCA Section 1008 for the opening of lands to mineral leasing. The draft plans for SNCA and WMNRA propose to open 94% and 71%, respectively, of these Areas to oil and gas leasing. However, they do not present any discussion concerning potential environmental impacts from exploration and development activities and present only limited discussions on the oil and gas potential and environmental resources of these areas. Section 1008(b)(1)(A) of ANILCA states that "In such areas as the Secretary deems favorable for the discovery of oil and gas, he shall conduct a study, or studies, or collect and analyze information obtained by permittees authorized to conduct studies under this section, of the oil and gas potential of such lands and those environmental characteristics and wildlife resources which would be affected by the exploration for and development of such oil and gas." This wording clearly dictates that areas to be considered for opening to leasing should be deemed as favorable for discovery of oil and gas and that studies should be conducted to determine the oil and gas potential and the probable impacts on environmental resources from exploration and development activities. Neither the SNCA nor the WMNRA draft plans meets these criteria.

The only discussion concerning the potential for oil and gas discoveries in the WMNRA plan occurs on page 72 as follows: "Oil and gas potential for WMNRA is generally low. The most promising part of the unit for oil and gas is the area adjacent to the Yukon Flats National Wildlife Refuge." Likewise, a similar discussion is presented in the SNCA

plan: "Oil and gas potential for the Steese NCA is generally low, but potential is somewhat higher in the basin areas." Neither of these statements can qualify as a study of the oil and gas potential of these lands.

2) Impacts on Water Quality

5 We wish to call BLM's attention again to the fact that Water Resource Management statements made for alternatives B, C, and D of both plans are inconsistent with the Alaska Water Quality Standards as promulgated in 18 AAC 70 (waters within both of the Areas are presently classified for drinking water use and must meet Alaska Drinking Water Standards). Inconsistencies occur in the Water Resource Management Section on pages 35, 47 and 55 of the SNCA plan and on pages 33, 42 and 47 of the WMNRA plan.

The following excerpt from the Alaska Department of Environmental Conservation's 20 July 1983 letter, forwarded to Carl Johnson on 2 August 1984, regarding the Steese and White Mountains Land Use Plan Alternatives reiterates these concerns:

"1. We recommend that a statement similar to the one made in Alternative A, Water Resources, be made for all alternatives regarding cooperation between BLM and the Alaska Department of Environmental Conservation (ADEC) in water quality management. This is of paramount importance since ADEC has the responsibility for the protection and maintenance of the quality of Alaskan waters and their uses.

2. We wish to point out that the Procedure for Reclassification of Waters of the State are prescribed in 18 AAC 70.055 and require a public hearing. Presently the reclassification of waters of the State is the exclusive procedure by which the department will change the use designations of waters. The rivers and streams within the White Mountain/Steese Land Management areas must meet the most stringent water quality criteria of all included uses. Therefore, BLM management may be inconsistent with the Alaska Water Quality Standards, should BLM attempt to manage these waterways for less stringent uses; namely,

Alternative B for secondary recreation,
Alternative C for growth and propagation of fish,
Alternative D for growth and propagation of fish within the wild and scenic corridor, or for industrial water supply in all other areas.

We urge the developers of these land management plans to investigate the procedure and legal processes of the reclassification regulations.

3. For any area where future mineral development may occur the land manager should be responsible for ensuring that terrain limitations will not inhibit or prevent adequate wastewater treatment practices from being employed; e.g., setting ponds in narrow, steep canyons. If a review of a mining application and a predevelopment visit to the site reveals that a potential operation will have difficulty constructing and/or maintaining a wastewater treatment system, then the land manager should disallow the development until an adequate wastewater treatment scheme is developed."

Sport fisheries occuring in the Areas are centered around Birch and Beaver Creek and their tributaries, mainly for Arctic grayling. Current sport fishing regulations and bag limits allow for the safe continued harvest of all sport fish found in these two Areas. Portions of both Birch and Beaver Creeks are under the federal classification of National Wild and Scenic Rivers. Both river systems are subject to placer mining activities, Birch Creek receiving much more mining pressure than Beaver Creek. It has been well documented that placer mining activities have adverse impacts on the aquatic biotic community. No where in these plans is there mention of enforcement of Federal Environmental Protection Agency Water Quality Laws nor is there mention of improving existing water quality conditions. Until the placer mining issue is resolved, the identification of crucial fish habitat and possible rehabilitation of streams as suitable fish habitat are not practical.

3) Socioeconomic impacts

These documents acknowledge that subsistence uses of the two Areas occur and that such uses must be given special consideration under terms set forth in Section 810 of ANILCA. The alternative management plans proposed are also attentive to the impacts each would have on local resource use patterns, both in and outside of the two Areas. We commend the BLM for addressing these important issues in the draft documents. Yet BLM should acknowledge the potential incompatibility of recreational and mineral development schemes with the local uses of fish and wildlife resources and whether the BLM's proposed management and mitigative strategies will be actively implemented and enforced.

Birch Creek village residents, for example, express continuing concern for the impacts placer mining operations in the two Areas might have on water quality in streams used for fishing and as sources of drinking water. This community has experienced such problems and believes the situation might be exacerbated if

additional mining operations are permitted. We encourage BLM to carefully evaluate any existing problems in the context of environmental assessments (EA) done prior to issuing leases for placer mining operations. The EA's also should assess the impacts of long-term fisheries habitat disruptions on local uses of water bodies for subsistence purposes. Consideration should be given to the cumulative effects of mineral development activities over time on fish and wildlife habitat in areas used by local residents near the two Areas.

6 State CSU Contacts cannot properly evaluate the present alternatives due to inadequate information on the socioeconomic impacts of each. The following questions should be addressed before a final alternative is selected:

a) Will the local communities of Central/Circle Hot Springs, Circle and Birch Creek benefit in increased employment and business opportunities?

b) What social impacts will occur on the above communities in regard to housing, subsistence lifestyles, traffic, improved access to Fairbanks, etc?

c) What are the employment opportunities of the various alternatives in tourism, mining, forestry, trade, and services? Will these changes diversify and stabilize the local community's employment or add to the seasonal nature of current employment?

d) To what extent will development of these recreational areas compete with other recreational resources in the area, particularly private resources?

e) To what extent are the harvest of timber resources available and economically practicable?

f) What is the current frequency of recreational users? What would be the expected number under the various alternatives?

We realize that much of this information will be difficult or impossible to measure accurately. However, before large areas are opened or restricted from potential mining and timber harvest, the socioeconomic impacts need to be better defined.

Following its publication last fall, we provided a copy of Richard Caulfield's report, Subsistence Land Use in Upper Yukon-Porcupine Communities (Alaska Department of Fish and Game (ADF&G), Division of Subsistence Technical Paper No. 16), to BLM's Yukon Area Manager. When we obtain additional resource use information for communities near the SNCA and WMNRA, we will make it available to the BLM. We also welcome the opportunity to work cooperatively with the Yukon Planning Area staff on matters of mutual concern, but would recommend that the planning team add a

person with a background in regional planning or regional economics. Such experience in evaluating the economic and social impacts of such projects would improve the analysis of the plans.

4) Impacts on wildlife

The wildlife sections in both documents are inadequate. They do not satisfy criteria stated in the drafts, nor do they discuss some important species (e.g. grizzly bears). These sections should be expanded to include information on approximate population numbers, densities, trends and human uses (such as harvest or hunter/days) of each major wildlife species. The wildlife impacts of the various options are quite generalized, yet some proposed land use practices will undoubtedly impact some species differently than others. These plans should be rewritten so that the impact(s) on each major species by each alternative is projected (i.e. impact of mining on caribou winter range, calving areas, sheep lambing areas), and they should ensure that habitat management is consistent with ADF&G wildlife species management objectives for the Areas.

7 Neither of the plans adequately address how proposed development under preferred Alternative E will impact caribou movements and habitat. Although the Steese and White Mountains Areas receive only light caribou use at present, this situation will change as the Fortymile Herd becomes larger. When the population goal of 50,000 animals is achieved (ADF&G projects 10-15 years) most of the currently unused range will once again be occupied as it was during the 1950's. Large-scale migrations across the Steese Highway will probably occur again. Any surface management plans must take this situation into consideration and long-term management decisions which greatly alter the character of the environment and disrupt important wildlife habitat should be avoided.

The EIS's planning criteria state that the alternative selected must insure ADF&G caribou populations objectives can be met. These criteria conflict with Alternative E; the EIS states under "Environmental Consequences" that this alternative has the highest potential for adverse effects on wildlife. The EIS provides no examples of how adverse effects of mining will be mitigated, so there is no information with which to judge the effectiveness of the mitigating procedures. It should also be noted that some development in some areas cannot be mitigated (i.e. calving and lambing areas, wilderness species such as sheep and grizzly bear which need large expanses of undisturbed habitat) even in special management areas, where BLM will presumably have special stipulations in effect.

5) Specific comments

The following comments pertain to both plans, however the page numbers refer to the WMNRA plan unless specifically noted otherwise:

Table of Contents, List of Maps - A map depicting areas open to mining should be included with each alternative.

Page 1, para. 4-8. This is the first place that the linkage between increasing levels of recreation development and mineral development is apparent, although it is a recurring theme throughout the document (see page 2 of this letter).

8 Page 1, para. 6-8. These discussions should point out that increased potential impacts are associated with the increasing levels of use "opportunities" contained in these alternatives. Also, BLM should recognize that access "improvement" from one perspective may be detrimental from another and should use a more objective term in this case. Finally, the statements declaring that wildlife and other resources will be protected are unsubstantiated, both here and elsewhere in the EIS. They are misleading to the public and should be removed or clarified.

Page 2, para. 1. The statement referring to the preferred alternative allowing "such utilization of valuable resources as will promote or not significantly impair public recreation" is also unsubstantiated. This alternative definitely has a potential to impair recreational use, and therefore conflicts strongly with the intent of ANILCA for these areas.

9 Page 7, para. 2. In the Issues Summary, the BLM identifies conflict between mineral and recreational resources but fails to state that recreation resource considerations will take precedence over other uses in accordance with the language of ANILCA. In general, despite the statement that the six issues need to be addressed in these documents, the issues receive inadequate attention later in the document.

Page 8, Planning Criteria. The criteria concerning mineral activities are in direct conflict with the ANILCA language regarding acceptable activities as well as with the first planning criteria addressing recreation. In order to meet the intent of ANILCA, such statements should be qualified. Does BLM intend to include opportunities for mineral exploration, development, and extraction even if it does not promote, or is incompatible with, or impairs recreational values? Mineral resource planning criteria belong in the same place as other values incidental to the purpose of the Areas, that is, they will be allowed to the extent they do not conflict with primary resource values (see penultimate criterion).

10

Page 8, Criterion for Selection of Preferred Alternative. The criterion providing for acceptable management costs is reasonable, however, the document later suggests it is a valid reason for not dealing with water quality impacts associated with the preferred alternative.

Page 13, para. 1-3. As mentioned earlier, the alternatives presented are inadequate to fulfill the NEPA requirements. Additional alternatives proposing different mixes of uses should be examined, or discarded with appropriate explanation, as NEPA requires.

Page 13, Intensive vs. Limited Management. The only concrete differences between these options is that BLM will apply surface management regulations only selectively in the latter option. Due to the concern for reasonable cost (see Criterion for Selection of Preferred Alternative) habitat management other than the use of prescriptive fire (wild or ignited) is unlikely and, therefore, is not a significant difference between these categories.

S-1 Page 14, Special Management Areas. These high value habitat areas receive no more special management than is available at the BLM Authorized Officer's discretion for land use proposals on any piece of public land managed by BLM. In fact, there is not even a commitment to use surface management regulations in these areas. This is the first of several places in the document where BLM fails to fulfill NEPA requirements that mandate that mitigation be developed in an EIS, rather than mentioned as a possibility.

Page 24, para. 1. We agree that the surface management regulations should be strongly enforced on the existing claims in the WMNRA. The text fails to say what "More field inspections..." is in reference to and it should be clarified.

S-6 Page 24, para. 6. The opening of all lands to mineral exploration in Alternative B is not justified in the text. It appears to originate from the Planning Criteria regarding mineral development, already discussed as being contradictory to the intent and language of ANILCA.

S-5 Page 28, para. 2. The unrestricted use of ORV's weighing less than 1500 pounds GVW in an alternative classifying 74% of the WMNRA for primitive recreation needs further clarification.

Page 33, 42 and 47. Water Resource Management for Alternatives B, C & D - In these sections, BLM is proposing to manage water quality to a level of quality lower than required by existing State standards. While BLM can propose reclassification of streams to standards different than existing ones, it is inappropriate for BLM to pre-empt the State of Alaska's rights to manage its waters to needed standards (see comments on page 5 of this letter).

The statements on water resource management in Alternative D are in direct conflict with statements within the alternative on fisheries resources. How can the "Maintenance and enhancement of all fish habitat" as a fisheries objective be resolved with the stated aim of managing areas outside the Beaver Creek Wild and Scenic River for "industrial water supply?"

S-2 Page 37, para. 3. The Limited Mineral Development Zone is introduced into the discussion as an undefined management category, the effects of which remain nebulous. Please clarify.

Page 38, para. 2. See comment for Page 24, Para. 6, above.

S-1, S-3 Pages 48-58 Description of Alternative E. The Preferred Alternatives contain many of the aforementioned problems and do not meet the goals for SNCA and WMNRA as identified in ANILCA, since many activities which will likely impair recreational uses are promoted. In general, the Preferred Alternatives allow exploration and development over as much of the Areas as is conceivably possible without adequately describing mitigation that would protect them, according to the purposes for which they were designated. Internal contradictions abound in these alternatives, including those between minerals and recreation, minerals and wildlife, minerals and/or recreation with wildlife, subsistence and many uses, etc.

The water resource management sections vary greatly from previous alternatives in that no specific targets for management are identified. Clarification is needed as to whether BLM is committing to manage for the standards identified in the State's classification of waters in SNCA and WMNRA. If it is BLM's intent to reduce management costs by maintaining the status quo for management, it is an admission that mitigation will be ignored.

Pages 61-86, Description of Affected Environment. This section is overly general. As it is currently written, this section suggests that BLM considers wildlife to be an unimportant resource in SNCA and WMNRA since most substantive material is included by reference only. We suggest the section be more detailed to avoid this impression.

11 Page 66, para. 5. The phrase "a few caribou, called the White Mountain Group" would be more accurate if it read "several hundred caribou..."

Page 66, para. 6. The most recent data collected from the Fortymile caribou herd indicate a minimum population estimate of 12,500 animals, rather than 10,000 as indicated here.

Page 66, para. 7. Part of WMNRA is currently used as a caribou calving area. Please clarify this in the text.

Page 67-69. The caribou and sheep maps (maps 3-1 and 3-2) should be updated to show the most recently collected movement data, available from the ADF&G office in Fairbanks.

Page 71, para. 2. Although little information is available concerning populations and trends of many wildlife species occupying SNCA and WMNRA, some data are available from the ADF&G office in Fairbanks. The BLM is requested to acknowledge these data in future drafts.

Page 72, Recreation. Trapping should be acknowledged as an important recreation and subsistence activity occurring in the Areas. It would also be appropriate to address the impacts of each alternative on trappers.

Page 79. We would appreciate clarification of what special management or protection would be provided by a "primitive" designation.

12 Page 81, Access. Existing access is described and it is mentioned that the State of Alaska claims some trails as public rights-of-way under Revised Statute (RS) 2477. In this section, a map showing all forms of existing access, including RS 2477 trails should be incorporated. Also, RS 2477 rights-of-way should be clarified by inclusion of the language similar to that found in the BLM Wild and Scenic River Plans, as follows:

> "The BLM will work cooperatively with the State of Alaska to identify all rights-of-way pursuant to Revised Statute (RS) 2477 within the unit's boundaries for administrative purposes. When rights of titles are granted directly by statute, such as RS 2477, these rights can only be adjudicated in the court system. However, for the purposes of carrying out the BLM's administrative duties, a determination may he made. Such a determination would not affect the legality of a RS 2477 right-of-way, but would provide a basis for administrative actions such as acceptance of rights-of-way applications of trespass actions."

State CSU Contacts encourage the selection of an alternative that gives the greatest possible access to all potential users, consistent with other stated objectives and constraints. Having several users jointly maintain and use a minimal number of routes is justifiable as long as the designated route is sufficient for the user's purpose. However, BLM should acknowledge that an increase in the number of visitors may lead to conflicts between users, especially recreationists and miners. Some miners may object to recreational use of roads and trails which they have constructed.

The statement regarding consultation with Department of Transportation and Public Facilities for selecting route locations through the wild river corridor is encouraging. Such cooperation is essential to adequate transportation planning and protection of resources. Also, in various places throughout the text we would appreciate having the name of the Alaska Department of Transportation and Public Facilities acknowledged correctly.

13 Page 82, para. 8. It should be noted that the community of Birch Creek is accessible during the winter months by snowmachine and dog team--not only by air or boat as is stated in the sections on "Social and Economic Conditions" in each document.

14 Pages 87-98, Environmental Consequences. The impacts section of this EIS is extremely general, underestimates the effect of mineral development, and is overly optimistic in the results of proposed (but unspecified) mitigation. Even so, the EIS states that adverse effects upon water quality (intimately related to recreation in the SNCA and WMNRA) could result from increased levels of mining, and that negative impacts will be of greater magnitude than in earlier alternatives. This conflicts with the enabling legislation for SNCA and WMNRA.

Finally, the SNCA and WMNRA document seems to have been written more as justifications for decisions already made than as documents that lay out all factors so that wise decisions can result from the process. The BLM fails to address the primary purposes of SNCA and WMNRA. Instead of managing existing (and possibly some compatible new) mining as an integral part of the Areas, BLM seems to be maximizing the mineral industry, without developing mitigation that would protect and promote the stated purposes of these Areas.

15 Page 95, para 1. The BLM should specify how bear/human conflicts will be mitigated in the vicinity of visitor service facilities.

Page 98, Alternative E. Because Alternative E is the preferred alternative, the projected impacts should be elaborated rather than stating "similar to Alternative C".

16 Steese Page 107, para. 3. The assumption that the positive impacts of mineral development on the economy outweigh the importance of recreation, wildlife and subsistence to the local economy and other interests is unsupported by factual data. On the other hand, there are data which place an economic value on the wildlife resource and from which value is obtained without degrading the environment or developed at the expense of other renewable resources (unlike mineral development). See the Tanana Basin Management Plan for the dollar values placed on wildlife.

The SNCA and WMNRA documents are unacceptable as written. We request that BLM use the NEPA process to discover what management decisions would be appropriate for the Areas, given the mandates of ANILCA. Rather than attempting to force land uses into areas where they are not appropriate, the thrust should be to diligently explore the possible mixes of activities that would fulfill the purposes of these ANILCA units. Exploration of these possibilities was evident in early planning work sessions but the various results are not available as alternatives in these documents. We again offer to participate with the BLM planners in identifying additional alternatives and providing information. Existing mining could be managed, along with the special attributes of these areas, in a true multiple-use scheme. However, the maximization of mineral activity at the cost of other values conflicts with the special conditions stated in ANILCA.

The EIS's for these Areas must, when they are complete, provide adequate information on the impacts and mitigation resulting from the decisions made for the WMNRA and SNCA. This is necessary in order to meet the requirements of NEPA. At present, no party, whatever their perspective, can identify how any particular value or resource will fare under the decisions made in the Preferred Alternative. The BLM must specify its management intent so that it is evident how activities will be managed, what the results are likely to be (including a worst case analysis), and how (or if) the impacts can be mitigated.

Thank you for the opportunity to comment on these documents, and we look forward to continued cooperation in the development of future drafts. Please do not hesitate to contact us if we can clarify any points brought out in this letter, or if we can be of assistance in the writing of the next draft.

Sincerely,

Tina Canning
State CSU Coordinator

cc: N. Green, BLM
J. Scott, BLM
L. Parker, ALUC
S. Leaphart, CACFA
State CSU Contacts

REPLY TO LETTER NO. 5

1. We believe that a full spectrum of alternatives was considered in regard to both recreation and mineral development. The definition of the primitive classification used in the Draft RMP/EIS makes it clear that mineral development is not compatible with primitive recreation due to the surface access, machinery use, and structures necessary for mining. This conclusion has been reinforced by the many members of the public who requested larger areas devoted to primitive recreation and who voiced their objections to mineral development in such areas.

2. The CEQ document you have quoted refers to "mitigation measures that are outside the jurisdiction of the lead or cooperating agencies . . . ." Surface Management Regulations (43 CFR 3809) are fully within the authority of the BLM; and, based upon the needs identified in this plan, we expect to fully enforce those regulations.

3. The analysis of effects and the discussion of mitigation measures has been greatly strengthened in the Final EIS. (See Chapter III.) Possible effects on wildlife, fisheries, and recreation are fully discussed. However, we do not believe that it is at all likely, even under a worst-case analysis, that significant portions of the area will become unusable to either grizzlies or caribou.

4. Section 1008 does not restrict oil and gas leasing to lands which are deemed favorable for the discovery of oil and gas. There is no prohibition on exploration or leasing of lands with low potential, such as the SNCA. The discussion of the impacts of such leasing has been expanded (see chapter III.) and fully satisfies the requirements of Section 1008.

5. In accordance with your comments, substantial changes have been made in regard to water quality. The Bureau recognizes the State's authority over surface waters in Alaska. The Proposed Plan makes it clear that placer miners will have to meet ADEC water discharge requirements as a condition of operation. The responsibility of the Environmental Protection Agency in this area is also discussed in the Proposed Plan. The Bureau will cooperate fully with ADEC and EPA in water quality management.

6. The best available information on these points has been included in Chapter III. As you point out, it is impossible to accurately measure the detailed impacts which you discuss. However, we believe our analysis of socio-economic impacts is more than adequate for assessments of the social costs and benefits of our proposals.

7. In response to this comment, the description of wildlife resources and possible impacts to them have been expanded. (See Chapters II and III.) Also, we have made it clear that the Bureau will cooperate with ADF&C in wildlife management on Federal lands. (See Proposed Plan.)

We are aware of the ADF&G population goal for the Fortymile Caribou herd, and this has been taken into account in the formulation of the Proposed Plan. Crucial calving areas will be closed to mineral development, and mitigating measures have been more clearly defined.

One of your major concerns seems to be the adverse impacts of mining on wildlife populations. We have clarified the mitigating measures to be applied in regard to mining on the 75 percent of the SNCA which would be open to mining under the Proposed Plan.

8. These issues are fully discussed in Chapter III.

9. Both of these comments refer to a portion of ANILCA which applies only to the White Mountains National Recreation Area. They are not applicable to the SNCA.

10. The Planning Criteria have been substantially revised.

11. All of these corrections and comments have been accommodated in the Final EIS.

12. The need for a State/federal cooperative effort to identify rights-of-way claimed under R.S. 2477 is discussed in the Support Section of the Proposed Plan.

13. This has been done.

14. The Draft RMP/EIS was in fact part of the decision-making process which this comment calls for. Your comments and others were considered in formulation of the Proposed Plan and Final EIS and have resulted in significant changes.

15. These changes have been made.

16. This issue is fully discussed in Chapter III.

Tanana Chiefs Conference, Inc.
Doyon Building
201 First Avenue
Fairbanks, Alaska 99701
Phone (907) 452-8251

March 20, 1984

Mr. Carl Johnson
District Manager
U.S. Bureau of Land Management
Post Office Box 1150
Fairbanks, AK 99707

Dear Mr. Johnson:

Enclosed are the Tanana Chiefs Conference comments on the Steese National Conservation Area, White Mountains National Recreation Area Draft Management Plans, and Environmental Impact Statements.

Sincerely,

TANANA CHIEFS CONFERENCE, INC.

William C. "Spud" Williams
President

Enclosures

61n3

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TANANA CHIEFS CONFERENCE, INC.
March 1984

COMMENTS

regarding BLM Steese National Conservation Area,
White Mountains National Recreation Area
Draft Resource Management Plan,
and Environmental Impact Statements

Generally, both documents fail to assess the results of conflicts that mineral development and associated activities and recreational activities do and will create for subsistence activities and harvestable resources.

The Tanana Chiefs Conference, Inc. has been aware for many years of the complaints of local residents of the communities of Birch Creek and Circle over the impacts of placer mining upon water quality and associated environments of Birch Creek. The blame is generally accorded to placer mining operations, use of inadequate placering technology, and lack of enforcement of water quality regulations by state and federal governments.

S-11 The BLM documents do nothing whatsoever to explain how the ongoing and future cumulative impacts of increased placer mining activities could impact local subsistence resources and resource harvests. Characteristically, the documents are vague in many areas as well as subsistence.

We see, for example, statements such as:

> Subsistence use and subsistence resources will be protected through environmental assessments of proposed actions...
> page 20, White Mountains

We believe that a plan should explain exactly what is planned and should not simply refer to another future planning process, such as some future environmental assessment.

61n4

The Tanana Chiefs Conference, Inc. does support mitigation of placering impacts through the required use of new and alternative placer technology such as "water recycling" (page 87, Alternative A, White Mountains). The remainder of this paragraph "Water Resources (page 87) however, speaks to "unavoidable adverse affect(s) of placer mining" in a way which prevails throughout both documents and which we find unacceptable.

We also believe that the intent of Congress in P.L. 96-487, as it established these two conservation units, is that BLM do far more than it has proposed to do within these planning documents to control mining activities in such a way so as to mitigate placering damage to surface waters.

1 It is difficult for us to see any range of alternatives in either document. We do not, for example, see any alternative presented or examined which either proposes closures to mineral activities or which requires maximum use of recycling and other technologies for use in reducing turbidity and siltation from placering.

2 With respect to habitat management we see frequent reference to "intensive management" of habitats as a proposed action. There is never any expianation as to what this means. We question how caribou habitat, for example, can be "intensively" managed, and we know of no such examples.

3 We also have to comment upon the usefulness of these documents in solicitation of responses from rural communities. We find the documents difficult to read and to comprehend, vague, very overly generalized in content, and just about useless, especially for village level input.

We feel that Congress intended that the BLM manage these areas under special forms of management which will protect certain features, resource values, and a variety of resource uses and use patterns including use by local residents.

What we see instead is a plan which, in all its alternatives, seems to maximize mineral activity without any specific or meaningful plans to mitigate impacts resulting from this emphasis, and with no emphasis upon special management plans for other values and uses.

In addition to the vague nonexplanations of how subsistence would be protected, we see other erroneous statements about impacts upon subsistence posed by various alternatives. For example:

> Human use of subsistence species would be facilitated by improved access.
>
> (pp. 48, 55, White Mountains)

4 Which species? Which uses by whom? And, of what improvements of access do you speak? Clearly, improved access over time encourages conflict with local users as new users are encouraged by such improvements to enter into harvest activities. Competition for locally available subsistence resources then likely occurs. Why is there no examination of the claimed facilitation (improvement) for subsistence users?

The "Issue Summary" (page 7 Steese) incorrectly omits the fact that there also exists a conflict between existing mining operations and local residents who utilize locally available renewable resources from Birch Creek and associated environments.

SUMMARY

In sum, the Tanana Chiefs Conference, Inc. rejects these two planning efforts and asks that they be rewritten with examination of a wider range of management alternatives for each area.

REPLY TO LETTER NO. 6

1. All alternatives propose mineral closures in some areas, and Alternative A proposes retention of a complete closure for the entire SNCA. The Proposed Plan contains strong requirements for the maintenance of water quality; however, the decision on which technological technique should be used to meet these requirements is left to the individual miner. A description of the chosen technique will have to be included in the mining plan of operations, and mining will not be allowed to proceed unless the Authorized Officer is satisfied that the technique will do the job.

2. The description of management techniques has been expanded from that which appeared in the Draft RMP/EIS. Please see Chapter I.

3. We have attempted to make this document easier to comprehend through more specificity.

4. The entire issue of subsistence has been reexamined and reanalyzed in light of the subsistence policy which has been formulated since the publication of the Draft RMP/EIS. This policy is attached as Appendix G. The portions of Chapters I, II, and III which deal with subsistence have been substantially rewritten, and we believe you will find that all of your concerns have been addressed.

IN REPLY REFER TO:
NAES

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Northern Alaska Ecological Services
101 12th Avenue
Federal Building, Box 20
Fairbanks, Alaska 99701

April 12, 1984

RECEIVED
BUREAU OF LAND
MANAGEMENT
APR 13 10 26 AM '84
DISTRICT OFFICE
FAIRBANKS, ALASKA

Carl Johnson
District Manager
Bureau of Land Management
P.O. Box 1150
Fairbanks, Alaska 99707

Re: Steese National Conservation Area
Draft Resource Management Plan
and Environmental Impact Statement

Dear Mr. Johnson:

We have reviewed the Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the Steese National Conservation Area (SNCA) and have some serious concerns regarding the treatment of fish and wildlife resource values. On April 2, 1984, personnel from our respective agencies met to discuss our concerns with the draft RMP/EIS for the SNCA and the White Mountains National Recreation Area (WMNRA). We appreciate the time and effort expended by your staff to hear and address our concerns at the local level and your extension for submission of these comments. We hope you will consider the following comments with respect to incorporating reasonable measures to protect fish, wildlife, and other resource values in the RMP.

General Comments:

S-3 As a general overview, we question whether the preferred alternative identified in the RMP is compatible with applicable provisions of the Alaska National Interest Lands Conservation Act (ANILCA), the National Environmental Policy Act (NEPA) and, in some cases, whether it is consistent with the planning criteria you have identified in the RMP. We believe the preferred alternative (Alternative E) and Alternative D would render significant and unnecessary adverse impacts to fish, wildlife, recreational and cultural resources in the SNCA. We believe the plan should provide a more affirmative commitment to mitigation or protection of key fish and wildlife resource areas or specific habitat types, such as mineral licks and riparian and wetland habitats.

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Information contained in the document is quite general and noncommittal, which renders management implications difficult to address. From discussions in our meeting on April 2, it is our understanding that you are amenable to modifications of the plan to provide more specific or definitive information for public and interagency review. We appreciate your attention to this matter and are providing the following information and comments to assist in this effort.

1 A major concern is mitigation of adverse effects of potential minerals exploration and development. The plan addresses mitigation in a cursory manner, with general statements such as, "improved implementation of surface management regulations (43 CFR 3809)," "more field inspections," and "strengthening of management actions to ensure resource protection." However, on page 107 the preferred alternative, which provides for maximum mineral development, is justified largely on the basis that, "...most impacts can be mitigated through the measures included in this alternative..." The SNCA frequently refers mitigation responsibilities to 43 CFR 3809, apparently relying on improved implementation of these surface management regulations. We believe that diligent implementation of these regulations could reduce adverse impacts on the fish, wildlife, and scenic qualities of the SNCA, particularly the regulations which deal with requirements for reclamation (§3809.1-2), and prevention of unnecessary or undue degradation (§3809.2). However, effective implementation of these surface management regulations is very uncertain. It is dependent upon sufficient allocation of budget and manpower, which cannot be guaranteed. That is why we are concerned for too much reliance on these regulations. It has been our observation, however, that most active mining operations on Bureau of Land Management (BLM) lands throughout interior Alaska fail to comply with 43 CFR 3809 regulations, particularly §3809.2-2(b), which requires operations to comply with applicable State and Federal water quality standards, including the Federal Water Pollution Control Act (FWPCA), as amended.

2 At our April 2 meeting we provided your staff a copy of the Fish and Wildlife Service (FWS) mitigation policy, which may provide useful ideas for developing a mitigation strategy for the SNCA and WMNRA. We suggest that the plan specify mitigation measures expected or required to be included within a Plan of Operations. Measures to reduce adverse impacts on fish and wildlife resources should include, but not be limited to, removal and stockpiling of organic overburden outside the active floodplain for subsequent reuse for restoration, stabilization or avoidance of cut slopes, construction of settling ponds that will meet State and Federal water quality standards, measures to assure unrestricted fish movement and feeding activities, avoidance of important fish and wildlife habitats, minimum buffer requirements between development activities and streams or wetlands, timing restrictions, removal and disposal of solid wastes, and access-related restrictions. In accordance with 43 CFR 3809.2-1, we request the opportunity to review and make recommendations on environmental assessments prepared in conjunction with future plans of operations.

Specific Comments:

Pages 7-8, Criteria for Land Use Plan: The planning criteria indicate that all alternatives will include opportunities for future mineral exploration development and extraction. However, ANILCA does not mandate that all management alternatives include such opening for mining activities. We feel that the commitment of the study area to future mining (other than valid existing rights, as provided by ANILCA) at the very onset of the planning process precludes consideration of a full spectrum of management alternatives and is contrary to the letter and spirit of the National Environmental Policy Act (NEPA). Regulations for implementing the procedural provisions of NEPA state, "Agencies shall not commit resources, prejudicing selection of alternatives before making a final decision."

Both the second and third Criteria for Land Use Plan appear to contradict applicable provisions of ANILCA. Section 402(c) of ANILCA provides that, subject to valid existing rights, all mining claims shall be subject to regulations which assure that "Mining will, to the maximum extent practicable, be consistent with protection of the scenic, scientific, cultural and other resources of the area." However, your planning criteria provide opportunities for future mineral exploration, development and extraction, regardless of impacts on recreational or other resource values of the area. They also indicate that recreational opportunities be compatible with mineral exploration and development. According to ANILCA, mining should be regulated to assure compatibility with such uses as recreation, rather than restrict recreational opportunities that may not be compatible with mining, as is done in the RMP. 3

The preferred alternative for the SNCA would open the area adjacent to the Yukon Flats National Wildlife Refuge (YFNWR) to mineral development with virtually unrestricted access, which could degrade wilderness or primitive attributes of the adjacent refuge lands. We encourage close coordination between your staff and the refuge manager to ensure that refuge lands are not adversely affected.

Page 8, Criterion for Selection of the Preferred Alternative: We suggest that maintenance of environmental quality, as required by §401 of ANILCA, be added and emphasized as a selection criterion.

Pages 56-64, Description of Alternative E (the preferred alternative): The preferred management alternative (Alternative E) emphasizes mineral and other development opportunities at the expense of fish and wildlife resources and primitive recreational opportunities. It allocates 94 percent of the SNCA to mineral development and motorized access with only six percent devoted to primitive recreational classification which corresponds to the wild river corridor, Resource Natural Areas and Limited Mineral Development Zones (LMDZ). Even the areas designated primitive are subject to unrestricted use of vehicles less than 1,500

pounds gross vehicle weight (GVW), and provisions are made to authorize operations of vehicles larger than 1,500 pounds GVW and to establish rights-of-way for development of transportation corridors. As pointed out by your staff at our recent meeting, though 94 percent of the total surface area is open to mineral exploration and development, only a portion of that surface area will actually be subjected to mineral development, due to the geographic limitations of mineralized zones and economic limitations. On the other hand, it is likely that much of the mineral development will occur along streams, thus a high percentage of stream systems and associated riparian habitats are likely to be adversely affected by mineral development. Also, water quality impacts are not restricted to the site of mining activities. Degradation of water quality may continue far downstream. Both Birch Creek and Preacher Creek flow into the YFNWR; thus degradation of water quality as a result of placer mining activities within the SNCA will ultimately affect aquatic resources of the refuge. S-3

Mineral development, along the Birch Creek National Wild River drainage system severely degrades the subsistence fishery for the residents of Birch Creek Village, as well as the recreational opportunities, scenic values and fish and wildlife resources of the area. Studies conducted through the Alaska Cooperative Fishery Research Unit during 1982 and 1983 (LaPerriere, et al., 1983) have documented significant detrimental effects on aquatic resources on Birch Creek from gold placer mining operations. Placer mining induces substantial increases in turbidity and settleable solids. The downstream settlement of increased suspended sediments cements the streambed, interfers with interaction between surface and groundwater flows and alters water chemistry. Such settlement also destroys or degrades fish spawning, rearing and feeding habitat and can suffocate incubating eggs. Mined streams are also found to contain elevated concentrations of heavy metals (West, 1982 and 1983; LaPerriere, et al., 1983). Benthic algae and benthic macroinvertebrates, mostly aquatic insects, are significantly reduced in both quantity and diversity in mined streams, thus adversely affecting the aquatic food chain and ultimately the biological carrying capacity of the watershed. Fish populations in more heavily mined streams have been found to be largely depleted, except during fall out-migrations (LaPerriere, et al., 1983). These studies also demonstrate that fish subjected to waters carrying mining sediments suffer direct physiological harm. Tissue samples from fish collected from mined streams were found to contain abnormally high concentrations of some heavy metals (West, 1982 and 1983). 4

In addition to detrimental effects on aquatic resources, placer mining activities destroy productive, high-quality riparian and wetland habitats

recreational uses of these resources. Residents of Birch Creek Village have expressed concern and frustration over the continued degradation of water quality in Birch Creek as a result of placer mining activities which occur upstream.

Pages 58-61, Wildlife Habitat Management: The draft RMP/EIS states that, "Wildlife habitat will be managed to maintain wildlife populations at or greater than present (1982) levels." The feasibility of such a management goal is questionable with 94 percent of the SNCA open to mineral and transportation development and unrestricted motorized access.

The plan identifies Special Management Areas (SMA's) designed to protect special habitat values. We generally support such designations; however, the draft RMP currently contains only very generalized statements about protection of wildlife on these areas by application of "high-intensity management" through procedures such as Habitat Management Plans, special stipulations on permits or leases or plans of operation. To assure real benefits to fish and wildlife resources on the SMA's, and to achieve compliance with NEPA, we recommend the document contain a more specific commitment to protective measures. Updated information on important wildlife areas such as Dall sheep lambing areas, mineral licks, moose wintering habitat, and caribou wintering and calving ranges and migration routes, should be identified and special protection provisions developed in cooperation with the Alaska Department of Fish and Game. Section 401(b) of ANILCA designates caribou range within the SNCA, as well as Birch Creek, as special resource values to be considering in planning and management of the area. As we pointed out in our recent meeting, the SNCA currently receives only light use by caribou. However, the Fortymile caribou herd apparently is recovering from its dramatic decline of the 1970's and the population currently is rebounding. As the herd size increases, caribou use of the area likely will increase as the herd expands back into its historic range. In light of ANILCA and NEPA mandates, we urge you to avoid a wholesale commitment of land resources to mineral development which may limit the potential future reoccupancy of historic caribou range.

S-1, S-3

Management practices for peregrine falcons are the same for all alternatives. In conjunction with planning activities for the Birch and Beaver Creek River Management Plans, we provided your agency a copy of protection measures recommended for peregrine falcons, which are contained in the "Recovery Plan for the Peregrine Falcon - Alaska Populations." The protection measures were prepared by FWS in cooperation with the Alaska Peregrine Falcon Recovery Team, which included representatives from BLM. Two historic and one active peregrine falcon nest sites are known to exist along Birch Creek. Management practices contained within the RMP should be consistent with protection measures contained with the Recovery Plan to ensure that BLM management actions do not jeopardize the potential reuse of these nest sites. If the management practices contained within the draft RMP were expended to include the protection measures recommended by the Peregrine Falcon Recovery Team (Attachment A), the

5

report could safely conclude that there would be no effect to peregrines as a result of approving the RMP. However, since not all of the protection measures are included, some activities allowed within the scope of the plan may affect peregrine falcons. We suggest you either adopt the recommendations of the Recovery Team or request consultation with the Endangered Species Division of FWS pursuant to Section 7 of the Endangered Species Act.

Page 61, Fisheries Management (Alternative E): "Maintenance and enhancement of crucial arctic grayling habitat" is indicated as the prime emphasis for this preferred alternative. Your proposal to open most of the SNCA to mineral development, despite the consequences of potential water quality degradation, renders maintenance and enhancement of crucial arctic grayling habitat an unrealistic management goal. If your decision is to open most of the SNCA to mineral development, the document should state that fisheries resources will be adversely impacted by such a decision. Maintenance and enhancement of fisheries resources is not compatible with extensive placer mining activities. As your staff pointed out in our April 2 meeting, ANILCA contains provisions that guarantee reasonable access to and development of valid existing claims within the SNCA, thus some mining activities are likely to occur regardless of whether the area is open to additional mineral exploration and development. However, the proposal to open most of the SNCA to additional mining activities is likely to further aggravate and perpetuate degradation of water-related resource values and conflicts between recreational opportunities and mineral development.

6

We recommend that the relatively undamaged tributaries of Birch Creek, such as the South Fork of Birch Creek be protected from additional mining pressures and that continuation of any existing mining operations be contingent on adherence to State and Federal water quality standards and other requirements of 43 CFR 3809.

7

Page 61, Fire Management: The fire management options for all alternatives are compatible with the Yukon Flats National Wildlife Refuge fire management options.

Page 62, Recreation Management and Rights-of-Way and Other Realty Actions: Under the topic of Recreation Management for the preferred alternative (page 56), the draft RMP/EIS states that "Access will be improved by encouraging construction of improved roads in some locations. Construction may be accomplished by working with the State of Alaska or private development interests, such as miners." Page 62 of your document contains provisions to allow rights-of-way for transportation corridors across primitive recreation areas and the wild river corridor. We caution against the "encouragement" of improved access roads, primarily due to secondary impacts that would accrue. Development of a road network throughout the SNCA would offer incentives for additional mineral and other forms of development, and thus further aggravate

8

current water quality problems and primitive recreational opportunities. We recommend that the plan specifically identify those locations to which improved access would be permitted. We commend your proposal to consolidate transportation needs into designated transportation corridors to minimize unnecessary proliferation of rights-of-way.

Page 107: The document states that Alternative E is preferred because it will allow multiple use while maintaining environmental quality by mitigating adverse impacts from mineral development. However, as indicated previously, there is no specific information on nor commitment to any mitigation program. NEPA regulations require identification of appropriate measures to mitigate adverse impacts. We feel the general boiler-plate statements contained in the draft EIS do not satisfy that requirement.

S-1
S-3

The draft EIS concludes that the risk of adverse environmental impacts from mineral development "...are outweighed by the positive impacts of mineral development on the economy and on access for recreation or other activities..." (page 107). However, it does not consider the economic contribution of trapping and recreational activities such as hunting, fishing, hiking, floating, etc., on the local economy. In fact, trapping is not even considered in the draft EIS, despite both its significant recreational and economic contributions to the local area. The draft EIS also asserts that access development in conjunction with mineral development will render positive benefits to recreational opportunities and other activities and states that overall recreation use will be higher under the alternatives (D and E) that provide for the most mineral development. These claims contradict public testimony by recreationists at previous public meetings. As pointed out earlier, adverse impacts on scenic qualities, water quality and associated fish and wildlife resources are likely to present an overall deterrent to many recreational uses.

9

The draft RMP/EIS should contain discussion of cumulative and indirect effects or secondary impacts of the alternatives, as well as quantitative analysis of impacts where possible (i.e., acres of each habitat lost). It was pointed out in the April 2 meeting that it is impracticable to predict the extent of possible mineral development in view of economic and other uncertainties. According to Council on Environmental Quality (CEQ) guidelines, in the case of such an uncertainty or lack of information, an agency must include a worst-case analysis of the potential impacts of the proposal and an indication of the probability or improbability of this occurrence.

10

The draft document should identify all Federal permits, licenses and other entitlements which must be obtained to implement the plan as required by NEPA regulations (40 CFR 1502.25). Such laws and regulations include, but are not limited to, the Clean Water Act, Endangered Species Act, Fish and Wildlife Coordination Act, and Executive Orders 11990, "Protection of Wetlands," and 11988, "Floodplain Management." We recommend inclusion of applicable State laws and regulations as well.

11

We appreciate the opportunity to review this document and hope you will consider and incorporate our comments and recommendations. We look forward to close cooperation in the further development and implementation of your plans. Please contact us if we can be of any assistance, or if we can clarify any aspect of our comments.

Sincerely,

Gerald Strobele

Field Supervisor

Attachment

cc: Paul Gates, REO, USDI, Anchorage
Commissioner, ADF&G, Juneau
Columbus Brown, OEC, FWS, WDC

REPLY TO LETTER NO. 7

1. We do not believe that previous budgetary constraints in the implementation of 43 CFR 3809 are pertinent to this plan. The SNCA is a conservation system unit designated by Congress; and, as such, it will receive special consideration in the BLM budget. We have every expectation that the enforcement needs identified in this plan will be met. As you point out, diligent implementation of these regulations will reduce adverse impacts of mining.

2. These comments were considered in formulation of the Proposed Plan and assisted us in developing more specific mitigation measures. We appreciate your offer to participate in the development of the environmental assessments. In preparing these assessments, the Bureau will prepare these documents with the necessary coordination and participation of those entities, groups, and individuals as appropriate.

3. The planning criteria have been substantially revised.

4. This information has been used in rewriting Chapter III.

5. As you recommend, the recovery plan has been adopted as part of the plan. It can be found in Appendix E.

6. The possible conflicts between mineral development and fisheries management are fully discussed in Chapter III. The additional information which has been gathered and the additional analysis which has been done since publication of the Draft RMP/EIS has resulted in significant changes in land use proposals affecting fisheries. The Proposed Plan would open considerably less land to mineral development than the Draft RMP/EIS, and provides adequate mitigation measures in other areas.

7. We have adopted this suggestion in the Proposed Plan.

8. In accordance with this suggestion, transportation corridors have been designated in the Proposed Plan.

9. Information on the economic contributions of trapping and recreation has been included in Chapter II. We believe it is true that mineral development does render positive benefits to recreation in the form of improved access and the improved access will lead to an increase in overall recreational use. We are fully aware of the adverse effects of mineral development, including the adverse effects of improved access, on some types of recreational activities. These effects are discussed in Chapter III.

10. Scenarios which predict the extent of mineral development have been included in Chapter I; and cumulative effects, indirect effects, and secondary impacts are analyzed in Chapter III.

11. Implementation is discussed in the Implementation section of the Proposed Plan. The regulation you quote does not require a complete listing of all laws or executive orders which pertain to land management. The plan is subject to all such laws or orders.

United States Department of the Interior

NATIONAL PARK SERVICE

YUKON-CHARLEY RIVERS NATIONAL PRESERVE
Box 64
Eagle, Alaska 99738

IN REPLY REFER TO:
D18(YUCH)

Mr. Carl D. Johnson
District Manager
Bureau of Land Management
Fairbanks, Alaska 99707

Dear Carl:

The following comments are offered in response to the Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the Steese National Conservation Area (SNCA). All comments are directed toward the preferred alternative (Alternative E) and can be applied to the other alternatives as appropriate.

1 - That portion of the conservation area that borders the Charley River watershed (identified by our own General Management Plan as a unique area to be managed as a natural unit under ecological principles and also recognized as suitable for wilderness designation) offers no buffer to proposed mineral development, oil and gas leasing, road and trail construction, or motorized off-road vehicle use. We suggest a buffer at a minimum similar to that proposed for the Birch Creek National Wild River (½ mile).

S-1 - We do not believe the Environmental Impact Statement (EIS) adequately addresses impacts to resources that cross the SNCA boundaries (Dall sheep, caribou, etc.) and limits its assessment to only the area within SNCA boundaries. No hint is made on impacts of adjacent areas or landowners.

- For example, oil and gas or mineral development may degrade air quality within this preserve, but no mention is made; motorized access encouragement may result in resource damage to the Charley River basin; ease in access through new road development is not studied for impacts to harvestable resources and increased pressure on populations within this preserve.

2 - The statement on page 110 regarding "consistency with plans for adjacent lands" is incorrect in that the preferred alternative, and indeed all the alternatives, are inconsistent with the proposed General Management Plan for Yukon-Charley Rivers National Preserve.

- In terms of editorial comments, Map A following page 3 should have this area properly labeled as "Yukon-Charley Rivers National Preserve"; also, under Federal Agencies on page 109, the proper name is "National Park Service".

We believe many of these comments, except those concerning the EIS, can be taken care of by providing, at a minimum, a similar protection area such as that proposed for Birch Creek National Wild River. Such a "primitive area" as a buffer between SNCA and the Yukon-Charley Rivers National Preserve would alleviate many potential impacts.

Thank you for the opportunity to comment. Please contact us if we can be of help in your plan development.

Sincerely,

David A. Mihalic
Superintendent, Yukon-Charley Rivers

REPLY TO LETTER NO. 8

1. The Steese National Conservation Area, like the Yukon-Charley Rivers National Preserve, is a conservation system unit created by ANILCA. However, the intent of Congress concerning resource management is clearly quite different for the two areas. Legislation directs that the SNCA be managed within a framework of a program of multiple use and sustained yield and for the maintenance of environmental quality.

Since the two units are separated by the divide between the Charley River drainage and the Birch Creek drainage and since there are no roads or trails which cross the boundary, we believe that the designation of the Area and appropriate mitigation measures would provide adequate protection for all adjacent land uses. Proposals for specific actions in areas adjacent to the National Preserve will be made available to the National Park Service and, if any specific impacts on the National Preserve are identified, every effort will be made to alleviate them.

2. Our statement regarding consistency means that there is nothing in our plan which conflicts with or prevents the full implementation of plans of adjacent land managers. We believe this to be true. Given the differing legal mandates for the two conservation system units, it is inevitable that there will be some differences between our plans, but we do not believe that these differences constitute inconsistency.

THE WILDERNESS SOCIETY

CHARLES M. CLUSEN
DEPUTY EXECUTIVE DIRECTOR
CONSERVATION

March 29, 1984

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DIST
FAIRBANKS, ALASKA

Carl D. Johnson
District Manager, Fairbanks
Bureau of Land Management
P.O.Box 1150
Fairbanks, AK 99707

Re: The Steese National Conservation Area and the White Mountains National Recreation Area Draft Resource Management Plans and Environmental Impact Statements.

Dear Sir:

The Wilderness Society appreciates the opportunity to comment on the draft resource management plans and environmental impact statements (EIS) for the Steese National Conservation Area (SNCA) and the White Mountains National Recreation Area (WMNRA). The Society is a nationwide non-profit conservation organization founded in 1935 by Robert Marshall, one of the early explorers of Alaska. The Society and its approximately 105,000 members (including 585 residents of Alaska) are dedicated to the protection and wise management of America's primeval forests, parks, rivers, shorelands and refuges and fostering an awareness and aporeciation of the great values that these lands, in their natural, untrammeled state, hold for all Americans.

It is important for the Bureau of Land Management (BLM) to recognize that in developing our comments on the Steese National Conservation Area and the White Mountains National Recreation Area, we were guided by the following two particularly important facts:

(1) Congress saw fit to give special designation to these areas of BLM lands so as to provide them with further mandatory protection than that afforded to other BLM lands in Alaska; and

(2) A principle purpose of the designation of the Steese NCA and the White Mountains NPA is to provide public outdoor recreation opportunity and benefits.

It is our opinion that these draft resource management plans and EISs are inadequate. They disregard the purposes for which these units were established

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under the Alaska National Interest Lands Conservation Act (ANILCA). The Society is especially concerned because these plans not only fail to meet the statutory standards set by Congress (ANILCA Sections 1312 and 401,) but they actually threaten values that the agency was told to protect, maintain or enhance. The following generic and specific comments address the deficiencies of these draft documents and recommend actions to improve the plans and environmental impact statements.

Generic Problems

1 The Society believes that the Bureau of Land Management cannot simply relinquish its authority to oversee that the ANILCA directives for the White Mountains NRA and the Steese NCA are carried out, much less actively work against the Congressional mandates. For example, throughout both draft plans and EISs it is stated as a matter of course that the preferred alternative will have adverse impacts on vegetation, soil, water quality and quantity, wildlife, fish, visual resources, cultural resources and recreation. The plans assume that these adverse impacts are a given (i.e., that they must and will occur). This is simply not the case. The Bureau of Land Management has much more latitude in directing what adverse impacts will not be permitted on these federal lands. In fact, the BLM is directed, by ANILCA, to prevent some of these adverse impacts from occurring. The resource management plans must reflect the reason for special designations.

The specific management objectives stipulated in ANILCA for the White Mountains NRA are more preservation oriented than the guidelines for the Steese NCA, yet in both cases the intent of Congress to afford extra protection to these areas is clear. The White Mountains NRA is to weigh "public recreation and conservation values contributing to public enjoyment" most heavily while the Steese NCA stresses a program of multiple use and sustained yield of natural resources. The spectrum of values Congress addressed in establishing both of these areas in ANILCA, is in addition to the standards set for all BLM land management activity through FLPMA.) The following excerpts point out the difference in emphasis between these areas and the intent of Congress in elevating their status:

> "...the Secretary shall administer the White Mountains National Recreation Area in a manner which in his judgement will best provide for (1) public outdoor recreation benefits; (2) conservation of scenic, scientific, historic, fish and wildlife, and other values contributing to public enjoyment; and (3) such management utilization and disposal of natural resources and the continuation of such existing uses and developments as will promote, or are compatible with, or do not significantly impair public recreation and conservation of the scenic, scientific, historic, fish and wildlife, or other values contributing to public enjoyment. In administering the recreation area the Secretary may utilize such statutory authorities available to him for the conservation and management of natural resources as he deems appropriate for recreation and preservation purposes and for resource development compatible therewith." (ANILCA Section 1312,)

The directives for management of the Steese National Conservation Area are not as specific but they also reflect Congressional intent in providing additional protection for this area:

In order to provide for the immediate and future protection of the lands in Federal ownership within the framework of a program of multiple use and sustained yield and for the maintainance of environmental quality, the Steese National Conservation Area is hereby established...Special values to be considered in planning and management of the area are: Caribou Range and Birch Creek." (Section 401, ANILCA)

Congress clearly provided different management mandates for the two areas, yet the plans are virtually identical, demonstrating the agency's disregard for the individual qualities of the areas Congress sought to protect. Obviously Congress did not give the areas special designations so as to open them to greater development than other BLM lands in Alaska. These draft plans do just
2 that. They provide less protection for the NCA and the NRA than the areas currently receive and actually expose these areas to more resource development than other BLM lands in Alaska. It is important to note that both of these areas were considered to have significant enough natural resource values to have been included as part of the National Wildlife Refuge System under the House passed bill (H.R. 39). (Both of these areas would have undergone the mandated wilderness study if they had been designated wildlife refuges.)

Furthermore, the environmental impact statement appears to be fatally flawed. There are no studies or analysis of wildlife habitat and use of the areas, much less of the impacts of increased development and access. Stating
S-1 that there "will be adverse impacts" is not enough. The EIS should state the nature and extent of these impacts. In sum, these plans open the areas to increased development and motorized access not only with little or no knowledge of the effects this development will have on wildlife or habitat, but also in a manner contrary to the mandates of ANILCA. This is simply not good public policy in managing our nation's public lands.

Specific Problems

1. Fish and Wildlife Habitats and Populations

The environmental impact statements display a lack of existing knowledge as to the vital habitat for fish and wildlife populations. The Society believes that without this basic understanding of what is needed to sustain fish and wildlife populations in these areas the Bureau of Land Management is unable to give any assurance of how limited the adverse impacts of increased mineral development will be in these areas. In fact the BLM gives no assurance at all that the impacts will not be grave. For example, both EISs state that "the (preferred) alternative has the highest potential for adverse effects on wildlife" (WNRMA, p. 97, SNCA, p. 105).

The specifics of habitat and locations of particular species were not effectively delt with in the plans as offered to the public. In particular the caribou, Dall sheep and fish populations were mentioned but given little tangible consideration as the draft plans propose to open all these lands to ORV use and increased mineral activity. All other wildlife in these areas (moose, grizzly bear, black bear, furbearers, small game, raptors and waterfowl) were addressed in the following manner:

"Little data is available concerning populations or trends of other wildlife species in the area. Most populations appear to be healthy." (WNMRA, p. 71, SNCA, p. 73)

This information in the EISs clearly does not help in determining the effects on these wildlife populations of increased development. Furthermore, little if any, consideration is given to the historical and possibly soon-to-be-repeated, caribou winter use of the Steese. The EIS notes that the Fortymile herd is way down from its historical numbers, yet the plans contain no provisions for restoring the herd to previous levels. In fact, the draft plans open caribou areas to increased mining and ORV use. This lack of protection violates ANILCA's dictate that caribou range be a "special value" in planning and management of the Steese National Conservation Area.

The plans also note that the Dall sheep population has declined in recent years (WMNRA, p.66) yet there is no mention of what to do to alleviate this problem. Here again, as with the caribou habitat, most of the important Dall sheep habitat will experience increased mining development and access according to the White Mountain plan. The Steese NCA plan is even worse in terms of addressing the impacts on Dall sheep. Except for mentioning that Dall sheep inhabit the southern south Steese NCA unit, they seem to be ignored altogether in the plan. This herd of Dall sheep is particularly significant for maintaining genetic diversity within the species as has it been historically isolated from other sheep populations.

3 Fish populations are also adversely impacted in the draft plans, again with little knowledge of their habitat. Both plans note that "water quality, water quantity, and physical condition of the stream bottom are important features of fish habitat. Spawning areas, rearing areas, and over wintering areas are all regarded as crucial habitat. The extent and locations of these crucial areas are not known at present." (SNCA. p. 73, WMNRA, p. 71.) Yet, once again neither plan mentions either studies that have taken place or any proposed studies to determine where the crucial habitat is. Moreover, they both state that under the preferred alternative mineral development in the streams (Birch and Beaver Creek) and increased motorized use of the areas will adversely affect both water quantity and quality: "Because most of the area will be open to mineral development, this alternative presents the highest potential for adverse affects on water quality" (SNCA, p. 105). The Society believes that the impacts of development on fish habitat and populations should be clearly spelled out in the EIS for each alternative.

The wildlife Special Management Areas (SMA) seem to exist in name only. The plans fail to stipulate any priorities for protecting wildlife in these areas. The only protection given is a vague promise that, once a development project has begun, conditions will be placed upon it to somehow hold the damage below that caused by deliberate destruction.

Both plans also mention that the adverse effects of increased mining and resource use will be mitigated though increased enforcement of regulations. Yet there is no mention of where the money is going to come from for these increased mitigation measures. There is no allocation for funds in the FY '85 Budget.

Besides these major deficiencies in addressing fish and wildlife populations and habitat in the five alternatives given neither plan includes an alternative to maximize protection of existing resources. (Alternative A in both plans leaves ORV use unrestricted.) There is also no alternative
4 that maintains the existing mineral closures: "all alternatives will include

opportunities for mineral exploration, development and extraction." (WMNRA, p. 8)

2. Recreation

One of the primary purposes for and uses of these areas is recreation. Both the Steese NCA and the White Mountains NRA are accessible by car from Fairbanks. Currently these areas experience heavy use by residents of Fairbanks, Eagle and Circle Hot Springs. Recreational use of these two areas is expected to increase considerably in the near future as Fairbanks grows. There is little public demand for off-road vehicle use, yet the draft plans propose to open the entire Steese/White Mountain areas to ORV's under 1500 lbs. Even though there is no problem now, the Society believes that once these increased uses are established they will be difficult to eliminate. Therefore, guidelines and regulations for ORV use should be established in these plans.

S-5 Also, although the planning criteria and maps of the White Mountains NRA and Steese NCA preferred plans indicate that the primitive recreation areas will be closed to ORV use, in actuality, both of the units are completely open to motorized use. "In areas where a primitive ROS classfication is to be maintained, use of vehicles of less than 1,500 pounds gross vehicle weight will be unrestricted." (WMNRA, p. 54, SNCA, p. 61) This is in direct contradiction with the Code for Federal Regulations which identifies "primitive ROS areas" as non-motorized. The result is: provision for primitive recreation in the White Mountains NRA. Furthermore, the statement that hiking trails will be kept "non-motorized" is hard to believe, when the entire area is to be opened to motorized use. Even if the trails themselves are marked as closed to motorized use, enforcement of the closure would be virtually impossible, particularly considering the inadequate funding available.

The wild and scenic rivers within these areas (Birch and Beaver Creeks) are a major source of recreation. Beaver Creek is particularly outstanding resource because of its clear waters, natural condition, and opportunities for true primitive outdoor recreation. The plan proposes to open the headwaters of Beaver Creek to new placer mining thus decreasing both water quantity and quality downstream. The current major conflict between recreational floating and placer mining will be exacerbated by this increased mining.

The plans, themselves, state:

> "Expanded mineral development under this alternative, especially in the headwaters of Beaver Creek, could result in adverse impacts on recreation." (WMNRA, p. 95)

If this does happen, it would violate ANILCA. To have the possibility of it happening mentioned in the EIS seems to speak to the point that this should not be the preferred alternative as it shows a disregard for the intent of Congress for preserving these areas for recreation.

3. Commercial Use

The Secretary of the Interior has the authority to control surface occupancy, under ANILCA, yet the plans give no indication that there will be any

such control. Both plans mention that "some impacts can be mitigated through implementation of existing surface management regulations, but there will be some unavoidable adverse impacts to recreation." (WMNRA, p. 95, SNCA, p. 97) Yet, the plans never mention what those surface management regulations will stipulate. The Society believes that in order to determine how effective the surface management regulations will be one needs to know what they will be. Also some of the potential mining claims could be unprofitable if surface management regulations are strict which miners should know before attempting to develop their claims.

Furthermore, the cites in the plans and the bibliographies show that no studies have been conducted on the mineral potential of these two areas since the 1978 U.S. Bureau of Mines study. Surely before allowing these areas to be opened for mineral development some further study of the areas should be undertaken. Just because an area is identified as within a mineral occurrence
5 or terrain does not mean that there is any recoverable mineral in the area. The Society recommends that the plans contain a map of each area with overlays of the mineral occurrence and terrain, existing mining claims, and habitat for indicator species among other things so as to provide a clearer picture of the existing uses of these areas.

The plans do not indicate the source of additional BLM funds necessary for the increased monitoring of the commercial uses these plans encourage. Nor does it include money for reclamation of mined areas. The plans also lack any indication of what requirements will be placed upon mineral developers in terms of reclamation. In sum, the draft plans open both units to additional commercial uses which will not contribute to "public enjoyment" and will have major adverse impacts on the natural characteristics of areas essential to public recreation values without providing any stipulations on mining or reclamation of areas. The White Mountains EIS states that the preferred alternative will result in an "irreversible commitment of resources." (WMNRA, p. 95) This alone contravenes ANILCA.

4. Access

S-5 Both areas will be completely open to motorized access. Both plans state that vegetation, soil, water quality, wildlife, fish, recreation, visual resources, cultural resources, will be in some way adversely impacted by increased access in these areas. The only positive side of increased access stated in these plans is that "summer access will be improved significantly by roads and trails constructed for recreational use or mineral development." (WMNRA, p. 95, SNCA, p. 104) The Society believes that there is really no purpose to improving the access to these areas if there is nothing worth seeing once access is improved.

5. Research

There is an obvious scarcity of research on the effects of the preferred
6 alternatives on Dall sheep, brown bear and caribou in the EISs (see section on Fish and Wildlife: Habitat and Populations). The plans state that these species will experience adverse impacts but the extent and the lasting effects are not known. The same is true with fish populations, and cultural resources. That these plans and EISs are deficient for their lack of information about the resources in the areas is bad enough, but even more

pervasive is the fact that in light of this admitted lack of study of the areas, both plans push development at all costs. And the costs may well be high.

6. Staffing and Management

The preferred alternatives both state that implementation of these plans will result in a considerable increase in the cost of management:

"Implementation of this alternative will require increased commitments of resources in the recreation, minerals, and wildlife programs. The minerals program will need increased funding foe enforcement of surface management regulations, and wildlife will require funds for planning and execution of habitat improvement projects and necessary inventories". (WMNRA, p. 92)

"This alternative projects the highest level of recreational development, and therefore will require tne most construction and the highest level of visitor services. Also, this alternative has a high potential for increased mineral development, which will increase the work load in enforcement of surface management regulations, maintenance of wildlife values in the Special Management Areas, and protection of any other resources which may be put at risk." (SNCA, p. 107)

7

The Society believes that the BLM should indicate how they intend to meet those increases costs. Neither the FY'84 budget nor the FY'85 budget proposal includes increased funding for these areas. New mineral activity and the resulting disturbance of the natural characteristics of the area (White Mountains NRA) will occur as soon as the area is opened to new mineral leasing (i.e., when the resource management plan is final). All recreation facility development and monitoring impacts of mining and off-road vehicles will be dependent on BLM funding levels. There is already concern that no funds will be budgeted for recreation or surface management of mining regulations. As it is, BLM is not adeouately staffed in these areas to monitor for compliance. These plans contain no guarantee that BLM will be more capable of monitoring for compliance in the future, yet both areas are opened to additional mineral development.

7. Wilderness

Although Section 1320 of ANILCA releases these areas and all BLM areas in Alaska from the mandatory Section 603 FLPMA wilderness review, it does leave the option of conducting a wilderness review open to the Secretary. Former Secretary Watt issued a directive (March 12, 1981) that BLM areas in Alaska not be studied for wilderness suitability, but Secretary Clark has not made any statement as to whether or not these areas should be studied for wilderness. However, the Society believes that regardless of Secretary Calrk's inaction on this issue, Section 201 and 202 of FLPMA stipulate that all resource values be

8

inventoried and considered"; wilderness is one of these values. No where in these plans is wilderness even mentioned much less considered. Plainly, the White Mountains NRA and the northern Steese NCA are suitable wilderness areas. (The White Mountains was considered for wilderness designation during the D-2 discussions.) The Wilderness Society recommends that the White Mountains NRA and the northern Steese NCA be recommended for wilderness designation and the

southern Steese NCA receive further study for wilderness designation.

Recommended Action and Conclusion

The Society believes that the current draft plans and EISs fail to meet many of the legal requirements of ANILCA, NEPA and FLPMA. These far reaching deficiencies, vagueness, and lack of resource studies in the draft plans and EISs, hinder the Bureau of Land Management in making an informed decision in selecting a preferred Resource Management Plan for the Steese and the White Mountains. Therefore, it is requested that, among other things the Bureau of Land Management:

1. Re-do the draft plan and EIS of both areas;
2. Study the existing wildlife, fish and habitat of these areas;
3. Analyze the impacts of each alternative on wildlife, fish and habitat must be done;
4. Develop an alternative which provides for recreation as the primary activity;
5. Ensure that all alternatives contain primitive ROS objectives;
6. Designate the White Mountains and Northern Steese as wilderness and study the Southern Steese;
7. Update geologic studies of the areas and include new information as to the sites and projected values of the deposits;

9

8. Include maps showing where the existing claims are located and indicate which are currently being mined;
9. Ensure that the plans reflect the reasons for Congressional designation of these areas as speical BLM areas;
10. Specify in the plans stipulations for surface occupancy, reclamation, and water standards among other things;
11. Indicate what funds will be available for additional enforcement and monitoring;
12. Clearly define Special Management Areas and Limited Mineral Development Zones (i.e.,the extent of development permitted, the special values and how they will be managed, etc.);
13. Present the plans in a clearer fashion so that the reader does not have to hunt in three or four different places to find what the environmental consequences of each alternative will be.

Sincerely,

Charles M. Clusen

Charles M. Clusen
Deputy Executive Director
Coservation

REPLY TO LETTER NO. 9

1. As you point out, BLM is directed by ANILCA to protect the lands within the SNCA, and we intend to do so to the best of our ability. However, given the fact that there are valid existing mining claims within the SNCA and given the fact that even an action which is environmentally beneficial, such as prescribed burning to improve wildlife habitat, also has some negative impacts, it is not possible to conceive of any alternative which will have zero adverse impacts. In accordance with NEPA, we have attempted to describe the negative as well as the positive impacts of all proposed actions. We firmly believe that all alternatives are in compliance with Congressional mandates.

2. The area was closed to development pending completion of this land use plan. However, Congress has stated that "Where consistent with the land use plan for the area. . . the lands may be classified as suitable for locateable minerals exploration and development and open them to entry, location, and patent under the U.S. mining laws."

3. Data, and analysis of that data, concerning fish and wildlife habitat has been greatly expanded from that which appeared in the Draft RMP/EIS. See Chapters II and III. Also, inventories to gather more data are proposed in the Implementation section of the Proposed Plan. We believe that the existing data is sufficient to make the decisions presented in the Proposed Plan, and new data can be used to update the plan as necessary. Mitigation measures are described in the Multiple Use Management Prescriptions section of the Proposed Plan, and the funds and manpower necessary for enforcement are identified in the Implementation section.

4. The Proposed Plan now provides for ORV closures in some areas. Alternative A does maintain existing mineral closures; the statement you quote would apply only to existing rights under Alternative A.

5. Surface management regulations and special stipulations are now thoroughly described in the Proposed Plan. Information on mineral resources has been updated. More information is still being gathered, and the Implementation section of the Proposed Plan would provide for a mineral resource assessment of the entire SNCA. We believe there is already sufficient information to justify the decisions in the Proposed Plan. In any case, if an area opened to development proves to have no recoverable minerals, there will be no development or associated damage. Funds necessary for monitoring are identified in the Implementation section of the Proposed Plan.

6. Possible impacts on fish and wildlife have been more clearly defined in Chapter III. Also, more information will be gathered. Regular plan monitoring will insure that any unforseen impacts will be detected, and the plan can be modified accordingly. (See the Implementation section of the Proposed Plan.)

7. Staffing and funding requirements are identified in the Implementation Section of the Proposed Plan.

8. As you suggest, wilderness values and possible impacts to them are discussed in Chapters II and III. However, we must continue to abide by the Secretary's policy in considering wilderness designations.

9. All of these items were considered in preparing the Final EIS and in formulation of the Proposed Plan. Items 2, 3, 5, 7, 9, 10, 12, and 13 have been accommodated. Other items were dealt with as follows.

Item 1: The Final EIS is an expansion of the Draft. However, the range of possible land use alternatives has not changed, making it unnecessary to publish another Draft.

Item 4: Recreation is given a high priority in all alternatives. However, Congress specified that the Area was to be managed for multiple use, so other activities have also been given some consideration.

Item 6: This is contrary to the instructions of the Secretary.

Item 8: It is not possible to depict such small units as mining claims on the maps of the scale which are being used. Detailed maps and land status plats are available in the Fairbanks District Office for individuals desiring such information.

Item 11: Funds needed for enforcement and monitoring have been identified in the Proposed Plan.

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PART TWO

Steese National Conservation Area

RESOURCE MANAGEMENT PLAN

GOALS AND OBJECTIVES

Overview

The purpose of the Steese National Conservation Area Land Use Plan is to provide the Bureau of Land Management and the public with guidelines for protecting the quality and managing the use of the conservation area. The proposed actions recommended in this plan are a result of policy considerations, detailed technical work, an analysis of both completed and ongoing studies and reports, and an evaluation of public comments.

This land use plan helps to place resource opportunities, needs, and problems into proper perspective and to provide a basis for the orderly development and implementation of resource conservation, preservation, management, and uses. This plan is designed to be a dynamic tool for resolving critical issues and problems.

The Steese National Conservation Area was established by Congress through the Alaska National Interest Lands Conservation Act (P.L. 96-487 ANILCA). The Act provides for a program of multiple use and sustained yield and for the maintenance of environmental quality. Special values to be considered in planning and management of the area are Birch Creek and caribou range.

This proposed plan is designed to protect the wild and scenic qualities of Birch Creek National Wild River and to improve its water quality over the next several years. Such improvement, however, will be somewhat dependent on activities on Birch Creek and its tributaries outside the SNCA on both State and federal mining claims.

Within the framework of this proposed plan, crucial caribou calving grounds and Dall sheep habitat would remain closed to mineral entry in order to protect their natural and undisturbed qualities. Other important wildlife habitats would also be given protection through management actions within the semi-primitive management units.

Where consistent with the protection of Birch Creek and of caribou range, opportunities for the multiple use of natural resources would be provided. Two of the primary uses of the SNCA are recreation and mineral development. Diverse recreational opportunities would be available, ranging from backcountry non-motorized uses within the primitive areas to off-road vehicle uses within the semi-primitive areas. The several productive placer mines within the SNCA evince the highly mineralized

character of the Area. Considerable interest has been generated by the known occurrence in unknown quantities of tungsten, a strategic mineral.

The overall management strategy of the SNCA under this proposed plan is intended to compliment the management of the White Mountains National Recreation Area to the west as well as that of the Yukon Flats National Wildlife Refuge to the north, of the Yukon/Charley Rivers National Preserve to the east, and of adjacent State lands.

Goals and Objectives

Goals and objectives for this proposed plan reflect the requirements of ANILCA, the act which established the SNCA. Resource potentials have been examined from both a regional and a national perspective.

GOAL 1:	Improve the water quality of Birch Creek NWR.
OBJECTIVES:	Develop guidelines for mitigation of water quality degradation.
	Maintain the quality of the currently clear-flowing tributaries, i.e., Harrington Fork, Clums Fork, Sheep Creek, South Fork Birch Creek.
GOAL 2:	Manage present and historical caribou habitat as a primary land use.
OBJECTIVE:	Manage historical caribou range to meet Alaska Department of Fish and Game goals and objectives.
GOAL 3:	Manage lands consistent with multiple use principles and maintenance of environmental quality.
OBJECTIVES:	Manage Birch Creek and associated values in a manner consistent with the Birch Creek NWR Plan.
	Protect existing viewsheds along Birch Creek NWR.
	Improve access to recreational opportunities.
	Maintain or improve habitat to support viable self-sustaining populations of fish and wildlife.
	Provide for quality hunting, trapping, fishing, and wildlife viewing.
	Protect primitive recreation values in 1) the Mount Prindle/Lime Peak area and 2) along the Pinnell Mountain Trail.

Provide Research Natural Areas dedicated to scientific study of selected typical and/or unusual natural phenomena identified as type needs in the Ecological Reserve System.

Provide opportunities for ORV use where compatible with fish, wildlife, and recreation objectives.

Facilitate environmentally sound mineral development in a multiple use context.

MULTIPLE USE MANAGEMENT PRESCRIPTIONS

Introduction

This section describes the management decisions with their related terms and conditions which define the combination of allowable resource uses and levels of production or protection, the program constraints and the general management practices to be followed in managing the various public land resources within the Steese National Conservation Area. Based on management prescriptions, the SNCA has been divided into six management units: Primitive, Semi-Primitive Motorized Restricted, Semi-Primitive Motorized Special, Semi-Primitive Motorized, Research Natural Areas, and the Birch Creek National Wild River Corridor. These management units are delineated on the Proposed Plan map in the map pocket. Each of these management units has a multiple use management prescription which is appropriate to the resource capabilities and management intent for that unit.

Within the Primitive Management Unit, the intent is to maintain existing primitive values. The major resource use will be non-motorized recreation except for snowmobile use in the winter.

In the Semi-Primitive Motorized Restricted Management Unit, a somewhat wider range of uses, including the use of off-road vehicles, will be allowed. However, in order to ensure protection of crucial caribou and Dall sheep habitat, mineral development will not be allowed.

Mineral development will be allowed in the Semi-Primitive Motorized Special Management Unit but only with special stipulations specifically designed to protect wildlife and recreational values.

The Semi-Primitive Motorized Unit will allow for the greatest range of resource uses, including mineral development with standard BLM stipulations for environmental protection.

Research Natural Areas make up a management unit devoted to scientific research. Except for hiking no other uses will be allowed.

The Birch Creek NWR Corridor is managed under the Wild and Scenic Rivers Act (Public Law 90-542) to protect and enhance scenic, recreational, fish and wildlife, and similar values. An approved River Management Plan covers this management unit. Throughout this plan the phrase, "Birch Creek NWR Corridor," is used to indicate the lands within the NWR boundaries as defined in the Birch Creek NWR Plan.

The only practice which is not defined in terms of the management units is fire management. Fire management options are drawn from the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Area. The assignment of protection levels is based on criteria, such as natural barriers to fire spread, which may not be useful in defining boundaries for other management practices. However, there are no conflicts between the multiple use management prescriptions in this plan and the Alaska Interagency Fire Management Plan.

Prescriptions Common to All Management Units

Although this proposed plan divides the SNCA into six management units, several management prescriptions will be put into practice throughout the Area. These common prescriptions are described below.

RECREATION MANAGEMENT

Management Direction

PROTECTION OF IMPORTANT RECREATIONAL VALUES. Important recreational resource values that make the SNCA unique will be protected. These values include outstanding scenic vistas of high mountain terrain, primitive areas with virtually no evidence of manmade improvements, wildlife viewing opportunities, high ridge hiking opportunities along unmarked trails, unique landforms and geologic features, hunting opportunities, and outstanding opportunities for winter use of remote backcountry through a system of primitive cabins.

RECREATION FACILITIES. The need for new recreational sites, such as campgrounds, trailheads, parking, float-trip staging areas, etc. within the SNCA will be assessed. Areas of expansion and development of summer and winter trail opportunities will be identified. These will include short trail hiking opportunities from Birch Creek associated with river floating trips in the following drainages: South Fork of Birch Creek, Big Windy Creek, and Sheep Creek. Additional trails may later be identified for development.

A remote cabin program will be established and a system of cabins will be constructed which will accommodate recreational uses, such as float boating, dog mushing, backcountry hiking, and winter uses, etc. A winter trails system associated with the proposed cabin program will be identified for the North Steese Area.

Trails and recreational development will be located to avoid conflicts with crucial wildlife habitat and environmentally sensitive areas. Trail development will include: (1) developed trailheads with signs, maps, mileage, and other user information; (2) use of wood posts or rock cairns to identify trail routes; (3) boardwalks as necessary if wet areas cannot be avoided; (4) a system of public use shelter cabins at appropriate locations, and (5) informational maps, brochures, and similar items desirable for public use.

HUMAN RECREATIONAL USE OF FISH AND WILDLIFE. Opportunities for fishing, wildlife viewing, hunting, and trapping will be provided by improving access and management while recognizing the environmental protection.

VISITOR USE MANAGEMENT AND INFORMATION. Public information and interpretation will be provided through development of signs, brochures, and maps. These will include: (1) visitor information signs at trailheads; (2) maps, brochures, and interpretive information for public hand-out; and (3) signs and brochures on bear safety.

Special Recreation Use Permits are required for commercial uses such as commercial outfitting and guiding and commercial river trips, etc.

Visitor use will be monitored to evaluate use patterns, needs, and impacts. This will be accomplished through the use of aerial reconnaissance in primitive areas, traffic counters in developed vehicle access areas, and visitor registers on trails.

Rationale

The SNCA is bisected by the Steese Highway. This accessibility means that the present and anticipated future growth in the Fairbanks area will result in increasing demands on the SNCA, particularly for recreational purposes. Expansion of opportunities associated with Birch Creek, the major recreation attractor, will be most beneficial to the public.

Fish and wildlife values are also important recreational attractors, and proper management of these values will contribute greatly to public enjoyment.

WILDLIFE HABITAT MANAGEMENT

Management Direction

The primary emphasis of the wildlife habitat management program will be habitat protection, maintenance and improvement. The priority species will be caribou, Dall sheep, fish, and the peregrine falcon (an endangered species). The wildlife habitat management program will be implemented in cooperation with the Alaska Department of Fish and Game and U. S. Fish and Wildlife Service/Endangered Species Office.

Identification and monitoring of wildlife distribution, movements, and use areas will be done through the use of ground and aerial surveys. Information gained will be used to assess the effects of various land use activities, to determine habitat condition and trends, and to formulate measures to mitigate possible adverse effects on wildlife from land uses such as mining, roads, and trails.

HABITAT PROTECTION. Habitat protection in the SNCA will emphasize protection of crucial habitats. Crucial habitats are wildlife use areas which are necessary for perpetuation of the species or population and

which provide an essential element of the life cycle for that species or population. Crucial habitats for caribou and Dall sheep, as well as for other wildlife species within the SNCA, are listed in Table 9-1. Crucial habitats will be protected through the avoidance or mitigation of possible adverse effects of land use activities and by closing specific areas to mineral development. Areas which will be closed to mineral entry include crucial caribou calving areas in the South Steese and crucial Dall sheep habitat. The Birch Creek NWR encompasses the presently known nesting habitat for the peregrine falcon, and this area is also closed to mineral entry.

When specific land use actions are proposed in the Semi-Primitive Units, mitigating measures to avoid or minimize possible adverse effects will be developed through the environmental assessment process, as required by the National Environmental Policy Act and, in the case of locatable minerals, by the Surface Management Regulations (43 CFR 3809). As a result of this process, restriction or alteration of timing, location, and extent of a proposed land use activity may be required to avoid or minimize adverse effects. Table 9-2 shows crucial habitats and timeframes that aerial and surface use restrictions may be required in the crucial use areas. For example, restrictions may include 1500-foot minimum altitude for aircraft and 1 mile horizontal surface distance from crucial habitat. Rehabilitation of disturbed areas will be required to facilitate stabilization and recovery of vegetation.

Caribou range was identified by Congress as a special consideration in the SNCA. Emphasis will be placed on managing the Area to maintain the opportunity for the Fortymile caribou herd to utilize both present and historical use areas. In addition to previously mentioned habitat protection measures, future access routes, when feasible, will be consolidated with existing roads and trails within transportation corridors. These corridors will be intensively managed to minimize any potential "barrier effect" on caribou movements. Transportation corridors may also be subject to surface use restrictions to avoid conflicts with caribou movements at crucial times.

HABITAT IMPROVEMENT. Habitat improvement for moose and other species is provided for on a long-term basis through management of wildfire as prescribed in the Alaska Interagency Fire Management Plan: Upper Yukon - Tanana Planning Unit (Map 1-1). Additionally, prescribed burns may be used to reestablish or improve habitat for moose and other species. Areas to be considered for prescribed burns include, but are not limited to, Preacher Creek, the North Fork of Preacher Creek, and Rock Creek. Over the next ten years, a minimum of four prescribed burns will be conducted within the SNCA, each improving at least 7500 acres of habitat for moose and other species.

Rationale

The SNCA contains a wide variety of wildlife species, including federally listed endangered species (peregrine falcon). Protection of endangered

species is required by the Endangered Species Act, and ANILCA requires that caribou range be given special consideration in this plan. Dall sheep are given special consideration because of their priority as a game and viewing species and because of their sensitivity to disturbance. Other species will receive protective consideration through surface use and occupancy restrictions.

These species and many others found within the SNCA are an important resource value and a major recreation attractor.

CRUCIAL USE AREAS FOR VARIOUS SPECIES AND SPECIES GROUPS

Table 9-1

Species/Group	Crucial Use Area
Caribou	Calving (present and historical), movement routes (present and historical)
Dall Sheep	Mineral licks, movement routes, lambing, associated escape terrain, winter range
Moose	Late winter range, mineral licks
Grizzly Bear/Black Bear	Denning (winter), seasonal high use/high prey density
Peregrine Falcon/Other Raptors	Nesting, prey gathering
Furbearers	Denning (reproduction), seasonal high use/high prey density
Waterfowl	Nesting, overwintering (potential)
Small Game	Winter concentrations
Land/Shore Birds and Mammals	Concentrations which are crucial for predator prey gathering
Fish	Spawning areas, overwintering areas

POSSIBLE SURFACE USE AND OCCUPANCY RESTRICTIONS IN CRUCIAL HABITATS

Table 9-2

Species	Crucial Use Area	Dates
Caribou	Calving/movement routes	May 1 - June 15 Aug 15 - Sept 30
Dall Sheep	Lambing, movements	May 1 - 31
	Mineral licks	May 15 - July 15
	Winter range	Oct 1 - May 1
Grizzly Bear/Black	Bear denning	Nov 1 - April 31
Peregrine Falcon/ Other Raptors	Nesting, prey gathering	April 15 - Aug 31
Furbearers	Denning	May 1 - June 15
Fish	Spawning	May 1 - Sept 1
	Overwintering	Dec 1 - April 15

FISHERIES MANAGEMENT

Management Direction

Fish habitat will be managed to maintain the present quality of fish habitat in those tributary streams of Birch Creek that are largely undisturbed at present. These streams include the South Fork of Birch Creek and its tributaries, Clums Fork, Sheep Creek, and Harrington Fork. Primary emphasis will be placed on arctic grayling. The primary management tool used to mitigate the impacts of development on the fishery resource is the enforcement of stipulations which are attached to authorizing documents on a case by case basis.

In cases where upland gravel sources are not available or where their use would cause greater environmental damage than the use of riparian sources, riparian sources can be used. The gravel will be extracted in such a manner as to minimize the loss of fish and wildlife and their habitats.

Special stipulations will be placed on development activities in crucial habitat areas such as fish spawning and overwintering areas. Such stipulations could require an alteration in the timing of activities so as to avoid disturbing or disrupting spawning activity. In some cases it may be necessary to select an alternate site.

All surface disturbing activities will be required to meet water quality requirements.

All placer mines and other surface disturbances will be required to be rehabilitated in such a way as to minimize future erosion.

Other specific stipulations are listed in Appendix D.

Rationale

Sport fishing is a recreational use of the SNCA. Most sport fishing takes place on Birch Creek NWR and its tributaries. The Birch Creek fishery has been also identified as a subsistence resource for the Village of Birch Creek. It is therefore appropriate to concentrate management efforts on Birch Creek and its tributaries.

MINERALS MANAGEMENT

Management Direction

Mineral development, consistent with the goals and objectives of this plan, will be allowed to proceed in an environmentally sound manner.

LOCATABLE MINERALS. The following requirements will apply to valid existing claims as well as to any new mining claims which might be located in areas opened to entry:

> Each operator in the SNCA will be required to file a plan of operation or Notice of Intent depending on location and acreage disturbed. An operator who disturbs more than five acres per year or who is operating in an area closed to further mineral location is required to file a plan of operation. The plan or notice shall include the name and mailing address of the operator (and of the claimant if the two are not one and the same), a map showing existing or proposed access, the name and serial number of the claim(s) to be mined, proposed operation and dates of activity, type and degree of the operation, measures to prevent undue and unnecessary degradation, and a plan to reclaim disturbed lands. A reclamation plan must be included as a part of the plan of operation or Notice of Intent.
>
> The Authorized Officer has 10 days in which to review and respond to a Notice of Intent. He has 30 days in which to prepare an Environmental Assessment and to approve or modify a plan of operations to determine that an Environmental Impact Statement is necessary before the proposed operation may be allowed to proceed. (See Appendix F for further details).

Within the SNCA, wintertime cross-country moves would be preferred for the transport of equipment onto claims. Any cross-country movement of heavy equipment would have to be approved in advance by the Authorized Officer.

Close coordination with adjacent land owners or managers will be made where the potential exists to affect the lands under their control.

Special attention will be given to the protection of water quality. All operators producing water-borne effluent must obtain a National Pollutant Discharge Elimination System permit and meet the requirements of that permit. (Presently, NPDES permits allow no more than .7 ml/l of settleable solids and a maximum increase of 25 NTUs over natural conditions.) In addition, claimholders on Harrington Fork, Clums Fork, Sheep Creek, and the South Fork of Birch Creek will be required to show that mining will have no downstream effect on water quality before approval of plans of operation. Water quality will be monitored at the mouth of each of these streams to ensure compliance.

RECLAMATION. All operations in the SNCA will be reclaimed to the satisfaction of the Authorized Officer.

BLM will develop a program of erosion abatement and satisfactory reclamation on disturbed ground in the headwaters of Birch Creek. This program will involve federal claims outside of the SNCA in order to help improve the water quality of the Birch Creek NWR.

COAL. Since there is no known potential or demand for coal in the area, no lands will be opened to coal leasing.

SALEABLE MINERALS. Disposal of sand, gravel, rock, and other saleable minerals will be based on need and on conformance with the RMP.

Rationale

The Area contains mineral resources that are presently of economic value to the Fairbanks community. The mineral potential within the SNCA could provide a base for future economic development. Regulations are necessary to ensure that development occurs in an environmentally sound manner. Caribou habitat and the Birch Creek NWR must be protected. ANILCA and Bureau policy address multiple use and allow for development where compatible with other land uses.

OFF-ROAD VEHICLES, HORSES, AND AIRCRAFT

Management Direction

OFF-ROAD VEHICLES. The use of vehicles of greater than 1,500 pounds GVW off of a valid right-of-way will be allowed by authorization only. Such authorization will be given only when necessary to provide access to inholdings or for other purposes, based on analysis of the need and compatibility with the RMP. Approval would be given subject to conditions designed to minimize the impact to the environment or to other land uses. Crossing the wild river corridor would be allowed only if there were no economically feasible and prudent alternatives. Vehicle use could be authorized under a mining plan of operation (43 CFR 3809), with a right-of-way permit (43 CFR 2800 or 43 CFR 2920), or by other appropriate means.

For the most part, use of vehicles of greater than 1500 pounds GVW off of a valid existing right-of-way will be limited to winter months with adequate snow cover and will be limited to existing trails where practical. Under certain circumstances the Authorized Officer may authorize summer moves. These circumstances include but may not be limited to the following when: (1) a winter move would be impractical; (2) a summer move would not result in undue or unnecessary impacts to other resources as defined in 43 CFR 3809; (3) an existing trail would be used, and the proposed use would not damage the trail to the extent that it becomes unusable by recreational ORVs; (4) specialized equipment such as low ground pressure vehicles would be used which would minimize impacts to within acceptable limits; or (5) a specified limited number of trips over a trail would result in impacts within acceptable limits.

An ORV monitoring program will be developed and implemented to document both existing trails and their condition and newly disturbed areas of cross-country use. Information gained from this program will provide a basis for determining rehabilitation needs, for monitoring recovery, and for establishing a threshold as to when impacts are becoming excessive. On an interim basis, an area open to ORV use will be closed or restricted under any of the following four conditions:

1. A watershed will be closed to ORV use when, due to erosion and sedimentation or poor trail conditions, more than 5% of the miles of trail become difficult to negotiate with small 3-wheeler or other similar ORVs.

2. A watershed will be closed to ORV use when water pollution from ORV trails or disturbances become noticeable in Birch Creek or its major tributaries.

3. If there is extensive cross-country damage or rutting on trails as a result of the use of light ORVs, the area will be closed to ORV use from the beginning of breakup to the time when willows and dwarf birch are in full leaf. This will allow the excess moisture from snowmelt to dissipate and the fluffing of the soil caused by winter frost action to settle, thereby reducing the tendency to form ruts from vehicle passage.

4. ORV use will be restricted or prohibited it if becomes necessary to do so in order to protect wildlife or watershed values.

Permanent use restrictions on ORVs require an order signed by the Authorized Officer and published in the Federal Register. Signs will be posted at access points to inform the public of use restrictions. ORV management for the SNCA is shown on Table 9-3. However, where the Authorized Officer determines that ORVs are causing or will cause considerable adverse effects on resource values or other authorized uses, he/she shall immediately close the area or trail affected to the type of vehicle causing the adverse effect until that effect is eliminated and measures have been implemented to prevent a recurrence (43 CFR 8341.2).

ORV MANAGEMENT
STEESE NATIONAL CONSERVATION AREA

Table 9-3

	SUMMER	WINTER
Primitive	Permit Required for any ORV use off of a valid right-of	No Permit Required for snowmachines of less than 1500 pounds GVW Permit Required for all other ORV use
Wild River Corridor	Permit Required for any ORV use off of a valid right-of-way	No Permit Required for snowmachines of less than 1500 pounds GVW Permit Required for all other ORV use
Research Natural Areas	CLOSED TO ALL ORV USE	
Semi-Primitive Motorized Restricted Management	No Permit Required for vehicles of less than 1500 pounds GVW Permit Required for use of ORVs of greater than 1500 pounds GVW off of a valid right-of-way	
Semi-Primitive Motorized Special Management	No Permit Required for vehicles of less than 1500 pounds GVW Permit Required for use of ORVs of greater than 1500 pounds GVW off a valid right-of-way	
Semi-Primitive Motorized	No Permit Required for vehicles of less than 1500 pounds GVW Permit Required for use of ORVs of greater than 1500 pounds GVW off a valid right-of-way	

HORSES. The recreational use of horses will generally be unrestricted throughout the SNCA.

AIRCRAFT. Aircraft use will generally be unrestricted, except in areas of crucial wildlife habitat.

Rationale

Because the SNCA has few roads, the use of large ORVs is often necessary to gain access to mining claims or for other legitimate purposes. Light ORVs are often used for hunting or other recreational activities. Environmental damage and conflicts between ORV users and other users will be minimized by this policy.

Horses and aircraft are not expected to cause any significant problems or conflicts within the SNCA.

RIGHTS-OF-WAY AND OTHER REALTY ACTIONS

Management Direction

Four transportation corridors will be established under the authority of Section 503 of the Federal Land Policy and Management Act, P.L. 94-579 (FLPMA).

In the North Steese, one corridor will follow the existing Montana Creek trail to Preacher Creek; the other will extend from the end of the Porcupine Creek Road to Loper Creek.

In the South Steese, two corridors will be established to provide access to the south side of Birch Creek, one at Great Unknown Creek and one at Portage Creek/Buckley Bar. Both of these corridors follow existing trails into the Birch Creek NWR corridor, and both will cross the Wild River. In accordance with Section 1107 of ANILCA, any authorized transportation system within the NWR corridor must be compatible with wild river values and shall be constructed in a manner that does not interfere with or impede stream flow or transportation on the river. Location and construction techniques shall be selected to minimize adverse effects on scenic, recreational, fish, and wildlife and other values of the river area.

In order to prevent proliferation of rights-of-way, all future rights-of-way will, as far as possible, be located in one of these four corridors. If it were to become necessary for a right-of-way to extend beyond a corridor, existing trails would be followed whenever possible. Several users might be required to use the same right-of-way and to jointly maintain it. Holders of rights-of-way for roads or trails will be required to allow public access for recreation unless there is a compelling reason to deny such access.

Engineering studies for route selections within the transportation corridors will be conducted in order to identify road and trail locations, river crossings, geologic hazards and other important resource values prior to any construction.

LAND EXCHANGES. Land exchanges will be proposed in order to acquire the approximately 14,000 acres of State lands within the boundaries of the SNCA.

Other realty actions would be permitted if compatible with the land uses designated in this plan. The BLM is in the process of formulating a trapping cabin policy.

Rationale

Roads and trails are needed to improve access for recreation and make the area available to more users. They will also provide access to existing and future mining claims. The designation of transportation corridors will help to maintain environmental quality by consolidating major access routes. The two corridors in the North Steese would provide access to the Preacher Creek drainage. The corridors in the South Steese would provide access to the south side of Birch Creek.

The proposed land exchange would give the federal government additional management opportunities within the SNCA and ensure that the values for which the SNCA was created could be protected. It would also allow the State of Alaska to acquire federal lands in areas where it would have more flexibility for management.

VISUAL RESOURCE MANAGEMENT

Management Direction

Scenic quality will be maintained by adhering to Visual Resource Management objectives while implementing a program of visual assessment of all surface disturbing activities, e.g., new access trails, mining activities, ORV use, support structures and developments, recreational facilities, etc.

Rationale

Visual Resources contribute to public enjoyment of the area. Assessment of surface disturbances is necessary to determine whether or not VRM objectives are being met and to determine where site-specific mitigation measures will be necessary.

CULTURAL AND PALEONTOLOGICAL RESOURCES

Management Direction

Class III site-specific inventories will be conducted prior to any development action in order to identify, protect, or mitigate potentially adverse impacts to significant cultural and paleontological resources.

Rationale

The Class I literature search, the Class II field inventory on Birch Creek, isolated finds in the SNCA, and the pleistocene fossil material found in adjacent mining operations provide an indication of the potential for cultural and paleontological resources within the SNCA.

WATER RESOURCE MANAGEMENT

Management Direction

Water quality will be improved in Birch Creek NWR. This will be accomplished by: (1) reducing the amount of sediment released into Birch Creek and its tributaries by placer mines, including those outside of the SNCA boundaries; (2) allowing no degradation of existing water quality in Harrington Fork, Clums Fork, Sheep Creek, and the South Fork of Birch Creek; and (3) requiring reclamation of ground disturbed by mining to prevent stream sedimentation caused by erosion.

Regulation of mining to reduce sedimentation is discussed in detail in the Minerals section. Water quality will be measured at least once a month during the summer at several points on Birch Creek and at the mouths of Harrington Fork, Clums Fork, Sheep Creek, and the South Fork of Birch Creek. The information gained will be used to determine whether or not stipulations attached to mining plans of operation are adequate to protect water quality and whether or not the operator is complying with those stipulations.

A sufficient in-stream flow will be maintained in Birch Creek to meet the purposes for which the NWR was established. An in-stream flow study, already identified in the Birch Creek NWR Plan, will be conducted to determine how much in-stream flow is needed for the NWR. The federally reserved water right for the NWR needs to be quantified.

Rationale

Water quality in Birch Creek has been seriously degraded both within the SNCA and outside of its boundaries. Because Birch Creek has been designated by Congress as a National Wild River, improvement of water quality is imperative. However, improvement cannot be achieved by managing the water resources only within the Area. Some of the Birch Creek tributaries, which support excellent fisheries, will contribute to that improvement by protection through proper management.

FOREST MANAGEMENT

Management Direction

Forest products will be reserved for local use only. No commercial timber harvest will be permitted.

Rationale

There is little timber of commercial value within the SNCA and little demand for commercial sales in the area. Commercial harvest in remote areas could lead to soil erosion or other environmental problems and is unlikely to prove economical. The limited local demand for firewood or other forest products for personal use can be met without significant risk to resource values.

SUBSISTENCE

Management Direction

Compliance with Section 810 of ANILCA and the BLM subsistence procedures contained in Instruction Memorandum AK-84-339 (Appendix G) is required for any action to withdraw, reserve, lease, or otherwise permit the occupancy or disposition of public lands. The action can be initiated by BLM or by some other agent, as long as BLM has discretion to substantially affect the result. Subsistence values in the SNCA include the Birch Creek fishery and the Fortymile caribou herd. These values are further described in Chapter II of the Environmental Impact Statement.

Rationale

Section 810 of ANILCA requires compliance with directed procedures of this Act. In order to ensure compliance on BLM lands, further instructions have been promulgated and issued under the Bureau's IM AK 84-339, which is attached as Appendix G. The wildlife species mentioned are important to subsistence. Actions impacting these species must be analyzed under these procedures to determine the necessity of the actions and the adequacy of mitigation measures.

SENSITIVE AND RARE PLANTS

Management Direction

Inventories for sensitive and rare plants will be conducted as required for clearances of proposed surface disturbing activities. Sites will be protected by modifying proposed actions which threaten sensitive or rare plant habitats or by denying those actions which cannot be modified. If actions cannot be modified or denied, plant material salvage will be attempted.

Rationale

Sensitive or rare plant habitats will be protected from activities which might alter or destroy them and will be managed in such a way that it will not become necessary to list the plants as threatened or endangered in accordance with the Endangered Species Act.

Prescription for Primitive Management Unit

The Primitive Management Unit consists of the high country adjacent to the White Mountains National Recreation Area and the Pinnell Mountain Trail Corridor. These areas will be managed so as to protect quality wildlife habitat and recreation opportunities.

RECREATION MANAGEMENT

Management Direction

The Primitive Management Unit will be managed to protect primitive values along the Pinnell Mountain Trail and in the Mount Prindle/Lime Peak area. These values include outstanding scenic vistas of high mountain terrain, primitive areas with virtually no evidence of manmade improvements, wildlife viewing opportunities, high ridge hiking opportunities along unmarked trails, unique landforms and geologic features, hunting opportunities, and outstanding opportunities for winter use of remote backcountry through a system of primitive cabins. Much of the Pinnell Mountain Trail crosses what is now State land. Although the BLM has acquired a 100-foot-wide right-of-way for the trail, a cooperative agreement should be made with the State for management of these lands consistent with the values associated with the trail.

A primitive Recreation Opportunity Spectrum classification will be maintained.

A minimum of six miles of new trails are proposed within this unit.

Rationale

The Pinnell Mountain Trail is a National Recreation Trail. Its primitive setting should be maintained for the enjoyment of the public.

The Mount Prindle/Lime Peak area lies on the boundary between the SNCA and the White Mountains National Recreation Area. This area has outstanding scenic, wildlife, and other values contributing to public enjoyment. The portion of the area which lies within the WMNRA is designated for primitive recreation in the Proposed Plan for the WMNRA, and it is appropriate to make the same designation within the SNCA.

MINERALS MANAGEMENT

Management Direction

The Primitive Management Unit will remain closed to mineral entry under the 1872 Mining Law and to the leasing of oil and gas, non-energy minerals, and geothermal resources.

EXPLORATION. Anyone proposing to explore for minerals within the SNCA must contact the Authorized Officer. Activities which conform to the

management prescriptions for this unit and which will not impair the unit's primitive values will be allowable. Permits will generally not be required for helicopter landings. However, the use of off-road vehicles (except snowmachines) will not be permitted.

Rationale

The roads, equipment, and structures associated with mineral development are not compatible with primitive recreation and the primitive values present in this unit.

Section 1010 of ANILCA directs the Secretary to "assess the oil, gas, and other mineral potential on all public lands in the State of Alaska in order to expand the data base with respect to the mineral potential of such lands." The Secretary is also directed to allow for access by air for such activities. Information gathered through exploration by private companies would assist the Bureau in meeting this legal requirement. Such information, in combination with information which will be collected on wildlife and other resources, would be very useful in evaluating possible amendments to this plan. In accordance with Section 1010, all exploration will be carried out in an environmentally sound manner, with no appreciable alteration of the natural character or ecological systems of the Area.

OFF-ROAD VEHICLES

Management Direction

The Primitive Management Unit is closed to ORVs. Authorization will be required for the use of any motorized vehicle other than a snowmachine off of a valid right-of-way. The use of snowmachines will be allowed without authorization. (See ORV Management Table, 9-3).

Rationale

Use of ORVs is generally not compatible with management for primitive recreation use. Hikers and backpackers find the noise and visual intrusion of ORVs objectionable, particularly during the summer and fall months when recreational use is highest.

However, winter use of the area is extremely low because winter access is difficult. The use of snowmachines will allow some winter recreational use without creating serious conflicts. If conflicts arise between snowmachine users and cross-country skiers, some winter trails may be closed to motorized use.

VISUAL RESOURCE MANAGEMENT

Management Direction

The Primitive Management Unit will be managed as a VRM Class II area. The objective of this class is to retain the existing character of the

landscape. The level of change to the landscape should be low. Management activities may be seen but should not attract the attention of the casual observer.

Rationale

This management unit contains some of the highest scenic quality to be found in the SNCA. Aesthetic values are an important part of recreation, which will be one of the primary uses of this unit. A high level of protection for existing scenic quality is appropriate.

Prescription for the Birch Creek National Wild River Corridor

This management unit is distinguished from all others in the SNCA by the fact that it is covered by an approved River Management Plan, which became effective May 1, 1984. The River Management Plan for Birch Creek NWR provides a detailed description of the boundaries of the corridor, major issues and concerns for management of the corridor, and management actions. Part III of the River Management Plan, entitled The Management Program, is attached to this document as Appendix H and is the multiple use management prescription for this management unit. The prescription is designed to preserve the river and its immediate environment in its natural, primitive condition, in accordance with the Wild and Scenic Rivers Act (P.L. 90-542).

The Designated NWR corridor will be managed as a VRM Class I area. The objective of this class is to preserve the existing character of the landscape so that it appears unaltered by man. The level of change to the landscape should be extremely low because only very limited management activities should occur.

The NWR viewshed will be managed as a VRM Class II area. The objective of this class is to retain the existing character of the landscape. The level of change to the landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. The method for determining this viewshed will involve analysis and on-the-ground refinement by a team of at least two people trained in visual assessment. The viewshed consists of areas identified as critical to scenic viewing opportunities associated with the wild river floating experience. Factors to be considered when determining critical viewshed include seen-area, viewing angle, viewing time, and topographic screening.

This plan amends the Birch Creek River Management Plan as it relates to ORV use within the river corridor. Except as listed below, ORV use is prohibited within the Birch Creek NWR corridor.

During the winter months snowmachines of less than 1500 pounds GVW are permitted. ORV use for access to inholdings can be authorized under a mining plan of operation (43 CFR 3809), with a permit (43 CFR 2800 or 43 CFR 2920), or by other appropriate means.

Prescription for Semi-Primitive Motorized Restricted Management Unit

RECREATION MANAGEMENT

Management Direction

This management unit will be managed to maintain a semi-primitive motorized ROS classification. Use of light (under 1500 pounds GVW) off-road vehicles will be allowed without authorization.

A minimum of 12 miles of trail are proposed within this unit.

Rationale

Multiple use opportunities for hunting, hiking, wildlife viewing, and other recreational activities exist in this management unit.

MINERALS MANAGEMENT

Management Direction

The Semi-Primitive Motorized Restricted Management Unit will remain closed to mineral entry under the 1872 Mining Law and to leasing of oil and gas, non-energy minerals, and geothermal resources.

EXPLORATION. Anyone proposing to explore for minerals within the SNCA must contact the Authorized Officer. Activities which conform to the management prescriptions for this unit and which will not impair the unit's values will be allowable. Permits will generally not be required for helicopter landings.

Rationale

This management unit contains caribou calving grounds, an area of crucial importance to that species. Congress has directed that caribou range be a special consideration in this plan. Also, this management unit contains important habitat for a small population of Dall sheep in the Big Windy Creek/ Puzzle Gulch area. In view of the possible detrimental effects of mineral development on these two species, the area should remain closed.

Section 1010 of ANILCA directs the Secretary to "assess the oil, gas, and other mineral potential on all public lands in the State of Alaska in order to expand the data base with respect to the mineral potential of such lands." The Secretary is also directed to allow for access by air for such activities. Information gathered through exploration by private companies would assist the Bureau in meeting this legal requirement. Such information, in combination with information which will be collected on wildlife and other resources, would be very useful in evaluating possible amendments to this plan. In accordance with Section 1010, all

exploration will be carried out in an environmentally sound manner, with no appreciable alteration of the natural character or ecological systems of the Area.

VISUAL RESOURCE MANAGEMENT

Management Direction

The Semi-Primitive Motorized Restricted Management Unit will be managed as a VRM Class III area. The objective of this class is to partially retain the character of the landscape. The level of change should be moderate. Management activities may attract attention but should not dominate the view of the casual observer.

Areas of this unit that are determined to be within the critical viewshed for the NWR will be managed by VRM Class II objectives. These areas will be defined on 1:63,360 scale topographic maps within one year of completion of this plan.

Rationale

Resource uses which might require some changes to the landscape will be allowed in this unit . A Class III designation would permit some changes while still retaining most of the existing scenic quality.

Prescription for Semi-Primitive Motorized Special Management Unit

RECREATION MANAGEMENT

Management Direction

This management unit will be managed to maintain a semi-primitive motorized ROS classification. Use of light (under 1,500 pounds GVW) off-road vehicles will be allowed without authorization.

Areas adjacent to the Birch Creek NWR corridor will be managed to provide recreational opportunities which could be combined with a float trip, such as hiking trails leading from the river to interior areas. The best of such opportunities lie within the drainage of the South Fork of Birch Creek.

A minimum of 68 miles of trail and five cabins are proposed.

Rationale

The recreational experience of floating Birch Creek could be enhanced by providing additional opportunities for recreation. The South Fork area has high scenic quality and excellent opportunities for hiking, hunting, fishing, and wildlife viewing.

WILDLIFE HABITAT MANAGEMENT

Management Direction

The Semi-Primitive Motorized Special Management Unit in the SNCA encompasses portions of present and historical use areas of the Fortymile caribou herd and of Dall sheep. These use areas include caribou calving areas and principal movement routes and Dall sheep lambing areas, mineral licks, movement routes, winter ranges, and escape cover.

Emphasis will be placed on managing the area to maintain the opportunity for caribou and Dall sheep to utilize present and historical use areas. As a result, proposals for land use within this area will be required to include a mitigation plan that describes discrete phases and actions for the proposed activity. Possible mitigating measures would include restriction or alteration of the timing, location, and extent of the proposed land use activity.

Rationale

This management unit contains important caribou range, which was identified by Congress as a special consideration for this plan. It is therefore appropriate that this management unit should be a priority area for habitat management, and habitat protection should be a major factor in determining which other resource uses can be allowed and under what conditions.

MINERALS MANAGEMENT

Management Direction

The Semi-Primitive Motorized Special Management Unit will be opened under the 1872 Mining Law, to oil and gas leasing (43 CFR 3100), to geothermal leasing (43 CFR 3200), and to leasing of non-energy minerals (43 CFR 3500). All operations on leases and mining claims are subject to the following special stipulations.

1. Prior to commencing operations, the operator shall demonstrate that his operation will have no long-term, significant, adverse effects on caribou habitat or caribou populations.

2. Seasonal restrictions will be imposed between May 1 and June 15, or between August 15 and September 30, if the operation will interfere with caribou calving or caribou migration.

Rationale

This management unit contains areas of high mineral potential. It also contains important caribou range, which is required by ANILCA to be a

special consideration in this plan. Mineral development can be allowed to occur in this management unit only if such development has no long term impacts on caribou.

VISUAL RESOURCE MANAGEMENT

Management Direction

This unit will be managed as a VRM Class III area. The objective of this class is to partially retain the character of the landscape. The level of change should be moderate. Management activities may attract attention but should not dominate the view of the casual observer.

Areas of this unit that are determined to be within the critical viewshed for the NWR will be managed by VRM Class II objectives. These areas will be defined on 1:63,360 scale topographic maps within one year of completion of this plan.

Rationale

Resource uses which might require some changes to the landscape will be allowed in this unit. A Class III designation will permit some changes while still retaining most of the existing scenic quality.

Prescription for Semi-Primitive Motorized Management Unit

RECREATION MANAGEMENT

Management Direction

This management unit will be managed to maintain a semi-primitive motorized ROS classification. Use of off-road vehicles under 1500 pounds GVW will be allowed.

A minimum of 12 miles of trail and one cabin are proposed.

Rationale

Opportunities for hunting, hiking, wildlife viewing, and other recreational activities exist in this management unit. A Semi-Primitive Motorized ROS classification will allow motorized access for these activities, making them available to a wide range of users. No significant resource impacts or user conflicts are expected to result from these activities.

MINERALS MANAGEMENT

Management Direction

This management unit will be opened to entry under the 1872 Mining Law. It will also be opened to oil and gas leasing (43 CFR 3100), geothermal

leasing (43 CFR 3200), and the leasing of non-energy minerals (43 CFR 3500). All leasing will be under standard stipulations.

Rationale

This area contains existing placer gold mines and shows potential for other types of mineral development. Mineral development is compatible with other resource uses proposed for this area, and standard stipulations will be adequate to protect known resource values.

VISUAL RESOURCE MANAGEMENT

Management Direction

This unit will be managed as a VRM Class III area. The objective of this class is to partially retain the character of the landscape. The level of change should be moderate. Management activities may attract attention but should not dominate the view of the casual observer.

Areas of this unit that are determined to be witnin the critical viewshed for the NWR will be managed by VRM Class II objectives. These areas will be defined on 1:63,360 scale topographic maps within one year of completion of this plan.

Rationale

Resource uses which might require some changes to the landscape would be allowed in this unit . A Class III designation will permit some changes, while still retaining most of the existing scenic quality.

Prescription for Research Natural Areas

Management Direction

Two Research Natural Areas (RNAs) will be designated. One RNA, on Mount Prindle, includes 2800 acres in the SNCA, and the other encompasses the 160-acre Big Windy Hot Springs withdrawal. Locations and boundaries are shown in Appendix B. With the exception of hiking trails, no surface-disturbing activities will be allowed, except permitted research projects. These areas will be closed to off-road vehicles and camping to avoid disturbing research projects. Natural processes, including wildfire, will be allowed to continue with as little interference as possible. Primitive campsites could be established outside the RNA boundaries. Access into the RNA can then be gained through developed trails and helispots, which will be improved. Hiking, hunting, and nature appreciation will be allowed.

All Research Natural Areas will remain closed to mineral entry and all types of mineral leasing.

An establishment report, which describes the values within an RNA and details use restrictions, will be written for each RNA. This work is already under way.

Rationale

The establishment of Research Natural Areas is part of the Ecological Reserve System, an interagency program for establishing areas which are useful for scientific research. These areas were selected because they contain typical representations of ecosystems or unusual natural features.

DESCRIPTION OF FIRE MANAGEMENT

Fire will be managed according to the standards established in the Alaska Interagency Fire Management Plan: Upper Yukon-Tanana Planning Area. Fire management will enhance primitive and semi-primitive recreation values by maintaining vegetative and visual diversity and increasing wildlife habitat quality. Fire management options are described in Appendix A. The areas in which particular options will be applied are shown on Map 1-1. In addition to the options shown on Map 1-1, any inhabited cabins will be designated as Critical Protection Sites and will receive first priority for fire suppression. Other cabins, structures, and historic cabins have been designated to receive protection.

Fuels management and other strategies will be used to reduce the wildfire hazard to structures which require fire protection.

The level of fire suppression will be that necessary to protect life, property, and historical cabins and to prevent escape of fire to areas requiring a higher level of fire suppression. There are no areas within the SNCA where fire suppression is required to protect natural resource values. If increasing amounts of recreational or other uses mandate an increased level of fire protection, the level of suppression for any area can be changed. The Fire Management Plan is subject to annual review and modification.

Prescribed burning will be used to break up large areas of continuous fuels, improve wildlife habitat, and increase vegetative diversity. Prior to any prescribed burn, the area will be thoroughly investigated to identify any inhabited or historical cabins, other structures, or other critical protection sites, and appropriate measures would be taken to protect them from fire.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN AND OTHER PLAN ELEMENTS

The purpose of this section is to deal with Areas of Critical Environmental Concern and coal leasing, two planning elements which are given special prominence in Bureau planning policy and regulations.

ACEC DESIGNATIONS. ACEC designations are used to protect and prevent irreparable damage to important historical, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes; or to protect life and provide safety from natural hazards. No such designations are deemed necessary in the SNCA. No natural hazards, beyond the usual hazards associated with travelling in remote areas, were identified. Scenic values, fish and wildlife resources, and other important resource values were identified, but they can be adequately protected by the management prescriptions in this proposed plan and by standard BLM procedures. The additional layer of regulation provided by designation of an ACEC is not necessary to prevent irreparable damage to these resources.

COAL LEASING. Coal leasing is not proposed in this plan and therefore is not addressed here.

SUPPORT

Support activities are actions necessary to aid in implementation of the plan or to facilitate the type of resource management proposed in the plan. Such actions may be entirely within the authority of BLM, or they may involve other agencies, groups, or state and local governments.

Realty Actions

The BLM realty program will be needed to provide support to a number of other activities.

In order to open lands to mineral entry or mineral leasing, a Public Land Order will have to be written to revoke or modify the existing withdrawals.

The Bureau will have to process applications for rights-of-way for roads, trails, or pipelines which may be developed for access to mineral claims or leases, access for public recreation, or other purposes. In the case of applications from individuals, costs of processing may be recovered from the applicant. Applications from the State of Alaska for public roads would generally be processed at the expense of the federal government.

In order to clarify the question of public access, the State of Alaska should be asked to provide identification of all roads and trails for which it claims valid rights-of-way under the terms of Revised Statute 2477. The status of many miles of trail is presently uncertain, making it difficult to determine who has the authority to regulate use, who has the responsibility for maintenance and public safety, etc. A resolution of this problem would make implementation of this proposed plan far easier, particularly with regard to restrictions on off-road vehicles and all activities which require motorized access. A Memorandum of Understanding between the State of Alaska and the BLM should be executed to address this problem.

Intergovernmental Cooperation

Sharing of information with other resource management agencies and cooperative efforts in inventory, monitoring, research, studies, and enforcement are essential to the successful implementation of this plan. Some of the principal agencies with which the Bureau cooperates are as follows:

Agency	Focus of Cooperation
Alaska Department of Fish and Game U.S. Fish and Wildlife Service Endangered Species Office	Inventory, monitoring, studies, and management of threatened or endangered and other species and their habitats; monitoring and evaluation of impacts of land uses on wildlife; and monitoring of human use of wildlife resources
Alaska Department of Environmental Conservation Environmental Protection Agency	Monitoring water quality, enforcement of water quality standards
Alaska Department of Natural Resources/ Divisions of Mining and of Geologic and Geophysical Surveys U.S. Bureau of Mines U.S. Geological Survey	Assessment of mineral potential
Alaska Department of Natural Resources/ Division of Parks U.S Fish and Wildlife Service	Coordination of management on adjacent lands.

CONSISTENCY DETERMINATION

The SNCA is not included in lands covered by an existing federal, State, or local land use plan. However, land use planning for adjacent lands is in progress, and an effort has been made to coordinate this plan with the plans of adjacent land managers.

The North Steese is bordered on the north by the Yukon Flats National Wildlife Refuge, administered by the U.S. Fish and Wildlife Service. A land use plan for the refuge is currently being developed. In the absence of a completed and approved plan, consistency with USFWS programs and policies has been addressed in this plan. The comments and the way in which they have been addressed can be found in Chapter V of the Environmental Impact Statement "Response to Public Comment."

The South Steese is bordered on the east by the Yukon-Charley Rivers National Preserve, which is administered by the National Park Service. A draft general management plan has been prepared for the Preserve. Possible inconsistencies between the draft general management plan and the Draft RMP for SNCA were identified in a letter from NPS. Changes have been made in this plan to resolve significant conflicts. This matter is addressed in detail in the response to the NPS letter in Chapter V of the EIS.

Much of the SNCA is surrounded by lands belonging to the State of Alaska. Some of these lands are covered by the Tanana Basin Area Plan. There are no apparent conflicts between the State's plan and the present proposed plan for the SNCA.

Consistency with State programs and policies has been addressed by responding to the comments submitted by the State of Alaska on the Draft RMP/EIS. These comments and how they were addressed are printed in Chapter V of the EIS. Also, in accordance with 43 CFR 1610.3-2(e), a copy of this proposed plan has been submitted to the Governor of Alaska for a consistency review.

The North Steese is bordered on the west by the White Mountain National Recreation Area which is also under BLM administration. Land use planning for the SNCA and the WMNRA has been conducted simultaneously by the same planning team to ensure maximum coordination between the two plans.

IMPLEMENTATION

This section describes the actions which will be required to implement the management proposals described in this plan. This includes the development, operation and maintenance of new facilities; increased visitor services; monitoring and evaluation of use; and the increased manpower needs associated with these proposals. Implementation is not a single, discrete action. It is an ongoing process which will continue until this plan is replaced by a new, revised plan.

Activity Planning

The management proposals recommended by this plan represent broad scale land use decisions. In many instances, such as in the development of new facilities, more detailed, site specific planning is required. This level of planning is necessary to determine exact locations of improvements, to explore alternative methods of design and construction, and to provide specific guidance for operations and maintenance, etc. For the purposes of this section, these planning requirements have been identified as additional planning needs.

Figures on costs are broken down by program. These costs reflect participation and expenditures by the BLM Alaska State Office, Fairbanks District Office and Yukon Resource Area.

ADDITIONAL PLANNING NEEDS

Program:	Planning Needs & Objectives:	Completion Time	Cost
Recreation	1. Consistent with the recreation management objectives established throughout this plan, develop a Recreation Activity Management Plan to provide specific, detailed locations, timing, methods, and rationale for: a) public information and interpretation, b) remote public use cabin program, c) campgrounds, trailheads, boat launches, or other facilities, and d) summer and winter trails, especially hiking trails associated with Birch Creek.	1 year	$45,000
	2. Develop project plans for lay-out and design of all recreation facilities (priorities for these planning needs are discussed later in this section under construction and maintenance priorities)	3 years	$45,000
	Total Project Requirements:	4 years	$90,000

Visual Resource Management	Viewshed analysis of Birch Creek to define the critical viewshed	1 year	$12,000
Fish and Wildlife	1. Prepare Habitat Management Plan document to specify cooperative inventory, monitoring, protection and improvement projects and maintenance programs described in management prescriptions.	1 year	$ 9,000
	2. Yearly implementation of Habitat Management Plan	Ongoing	$105,400/YR for the life of the plan.
Fire	Project plans to describe exact procedures for prescribed burns.	2 years	$45,000
Water Resources	Prepare a plan for conducting in-stream flow studies on Birch Creek to quantify the federal reserved water right.	3 years	$55,000
Water Quality Monitoring	Monitor water quality on mainstream of Birch Creek and on tributary streams to ensure that the goals and objectives of the RMP are met.	Ongoing	$ 8,000

Construction and Maintenance

The following construction work will be necessary to fully implement plan decisions:

Recreation Facilities	Construction	Maintenance
85 miles of trails	$255,000	$10,000/year
3 cabins	$ 60,000	$ 5,000/year
5 trailheads	$150,000	$ 3,000/year
River access - Jump-off Creek	$100,000	$ 3,000/year

Recreation facilities will be constructed as funding permits. Priorities are as follow:

FIRST PRIORITIES

Jump-off Creek: River access, small campsite
Trail development: Sheep Creek/South Fork - 28 miles of trail
Trail development: Mount Prindle/Twelvemile - 18 miles of trail

SECOND PRIORITIES

Shelters at Sheep Creek/South Fork
Trail development: North Steese snowmachine trail - 40 miles of trail

THIRD PRIORITIES

Trail development: South Steese snowmachine trail - 12 miles of trail
Shelter: North Steese snowmachine trail

Manpower (Resource Protection and Visitor Services)

Many plan decisions can be implemented with existing staff as part of on-going resource management programs in the Yukon Resource Area. Actions which will require a significant increase in staff are described below:

RECREATION

Additional manpower will be needed to (1) prepare necessary activity and project plans and (2) provide maintenance and visitor services such as public information, monitoring ORV use, etc. This will require the services of a landscape architect (temporary position), a recreation specialist (seasonal), and two recreation technicians (seasonal), at an approximate annual cost of $54,000.

This manpower will provide for immediate needs. After construction of new facilities, additional manpower may be needed for maintenance and to handle increased visitor use.

MINERALS

To ensure compliance with approved mining plans of operation or mineral lease requirements, at least three inspections per year should be made of all operations. This will require a full-time surface protection specialist at a cost of approximately $40,000 per year and approximately $7,500 per year for aircraft use.

WILDLIFE

Additional manpower will be necessary to implement fish and wildlife project work. One seasonal wildlife biologist and one seasonal fisheries biologist will be required for five months each for approximately $35,000.

Monitoring and Evaluation of the RMP

Monitoring and evaluation provide information about progress toward the goals and objectives established in the plan. They are used to determine the effectiveness of plan decisions and related management prescriptions. Monitoring indicates when amendments or revisions may be necessary.

BLM planning procedures require monitoring and evaluation at least every five years. Because of the national interest in this plan, the high value of existing resources, and the scarcity of information about some of those resources, this plan should be evaluated at least once every three years or whenever a significant change in the management situation occurs.

Every three years, the Yukon Area Manager will be required to evaluate the plan on the basis of the best and most recent information available. He/she will:

1. determine if a multiple use prescription is fulfilling the purpose for which it was designed or if there is a need for amendment or termination of the prescription.

2. determine if predictions of effects and impacts from management actions were accurate as a basis for appropriate management action and for more accurate predictions in future planning.

3. reveal unanticipated and/or unpredicted effects including off-site impacts.

4. determine if mitigative measures are satisfactory and are as effective as predicted.

5. determine if any established threshold levels have been met or exceeded.

6. provide for continuing evaluation of consistency with plans or programs of the State of Alaska and adjacent land managers.

7. provide for continuing comparison of plan benefits versus costs (social, economic, and environmental).

8. determine if new data and/or information have affected the plan, its conclusions, or estimation of effects.

9. determine the rate and degree to which the plan is being implemented in terms of both the decisions that can be implemented without activity planning and those that require activity planning.

This evaluation will become part of the RMP file in the Yukon Resource Area office and will be available for public inspection.

In order to effectively perform monitoring and evaluation, more resource data is needed in a number of areas. Resource inventories necessary for effective monitoring are described below. Other inventory needs may become apparent after implementation of the plan.

RECREATION

A visitor-use survey will be undertaken to quantify number of users, types of use, impacts of use, user needs, and user conflicts. This program will be instituted within two years of plan approval and will continue for the life of the plan. Such information is essential to maintaining a recreation management program which is responsive to public demand.

Existing ORV trails will be mapped, and ORV use will be monitored. This information is needed to determine whether or not resource damage or user conflicts are occurring as a result of ORV use. The program should be instituted within one year of plan approval.

MINERALS

Mineral assessment of all federal lands within the SNCA is needed to expand the data base with respect to the mineral potential of the Area. The mineral assessment program may include, but would not be limited to, such techniques as side-looking radar imagery, airborne magnetometer surveys, and helicopter-borne core and test drilling. A mineral program consisting of gathering and analyzing rock and chip samples, stream sediment samples, and pan concentrates could be accomplished during a five-year period. The cost of such an effort would be approximately $915,000 ($183,000 per year).

The mineral resource assessment program discussed here is in keeping with the intent of Congress as identified in Section 1010 of ANILCA. All proposals for this assessment, whether conducted by public or private groups, would be accomplished in an environmentally sound manner that would prevent any lasting impacts which would appreciably alter the natural character of the SNCA or the biological or ecological systems found in it. Protective restrictions on access and operations during calving, spawning, migration, or other critical periods shall be imposed.

WILDLIFE

Ongoing and additional inventories and monitoring will be conducted, emphasizing identification of crucial use areas, assessment of habitat condition and trends, and assessment of effects of land use activities. Aerial surveys, ground surveys, and biotelemetry will be used.

FISHERIES

Fisheries inventories will be undertaken on Clums Fork, Harrington Fork, Sheep Creek, South Fork of Birch Creek, Preacher Creek, and the North Fork of Preacher Creek. This information will be used to evaluate the impacts of development of existing mining claims on those creeks and to formulate appropriate mitigative measures. Inventories will take three years and cost approximately $50,000.

SUBSISTENCE

BLM's data base on subsistence uses on and near federal lands will continue to increase as more studies of subsistence activities are completed for Central Alaska by ADF&G/Division of Subsistence and by other organizations and individuals. This information will further aid in developing mitigative measures for future site-specific land use proposals made to BLM.

PART THREE

Steese National Conservation Area

APPENDICES

A Fire Management Options

CRITICAL PROTECTION SITES (AREAS)

Policy

This designation is for those areas where fire presents a real and immediate threat to human safety and designated physical developments. Fires burning in these areas (sites) will be immediately and aggressively suppressed.

Objectives

- Protect human life and inhabited property.
- Place highest priority on the allocation of suppression forces to sites (areas) in this option.
- Limit damage from fire to the minimum achievable.

FULL PROTECTION AREAS

Policy

The fires burning in this area will be controlled through immediate and aggressive action.

Objectives

- Regardless of fire weather, or behavior, control all fires at the smallest acreage possible.
- Minimize the disruption by fire on designated, planned, or ongoing human activities in the area.

MODIFIED ACTION AREAS

Policy

Contain all fires using aggressive initial attack unless otherwise directed by the land manager/owner upon completion of a modified initial attack analysis.

Manage fires to consider resource management objectives in a cost-effective manner.

Objectives

- Reduce suppression costs on escaped fires through minimum force commitments and indirect suppression tactics.
- Provide opportunities for fire to help achieve land management objectives.

LIMITED ACTION AREAS

Policy

Contain fires only to the extent required to prevent undesirable escape from this area.

Objectives

- Reduce overall suppression costs.
- Allow fire to burn unimpeded to the fullest extent possible.
- Prevent fire activity in this area from violating fire management policies and objectives in adjoining areas.

B Research Natural Areas

Research Natural Areas (RNAs) are established under 43 CFR 8223. RNAs are established and maintained for scientific research and public education. They are chosen on the basis of natural characteristics which make them desirable for those purposes.

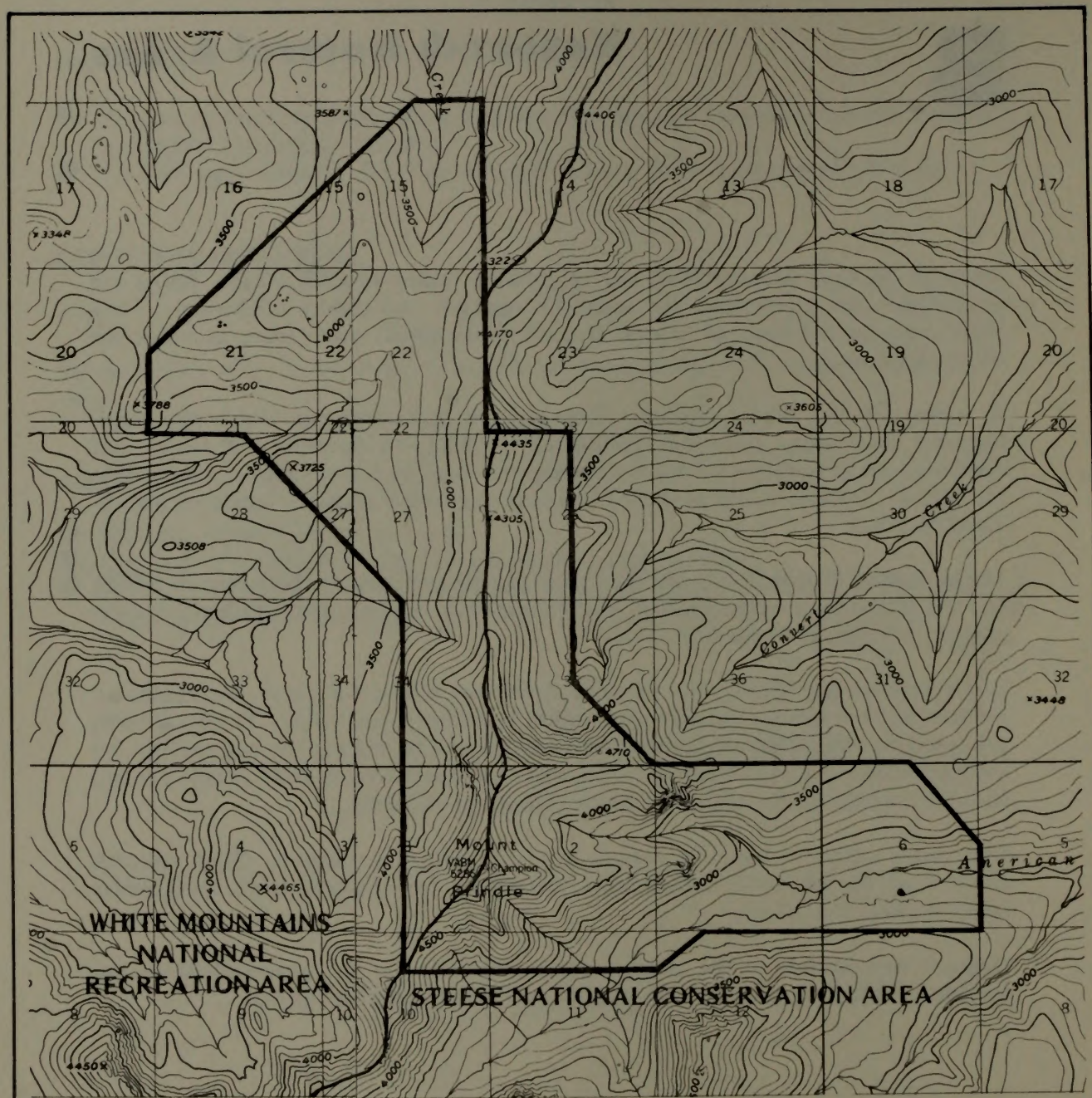
A survey of the Steese National Conservation Area and the White Mountains National Recreation Area was conducted in 1982, to determine if either unit contained areas suitable for RNA designation. Two such areas were found within the SNCA. Locations and proposed boundaries of these areas are shown on Map B-1 and Map B-2.

The proposed Mount Prindle RNA, which straddles the border between the SNCA and the White Mountains National Recreation Area, was selected for special physiographic, wildlife, and botanical values.

The proposed Big Windy Hot Springs RNA was selected because it contains an undisturbed hot springs and associated wildlife and botanical values. The boundaries proposed for this RNA in Alternatives D and E would include the hot springs and the immediate area. The boundaries proposed in Alternatives B and C would expand the area considerably in order to include Dall sheep use areas.

Both areas could be used for various types of scientific research. Such research could lead to improved management techniques for adjacent lands and similar lands in interior Alaska.

Detailed descriptions of the characteristics and values of the proposed RNAs are available at the Bureau of Land Management, Fairbanks District Office.

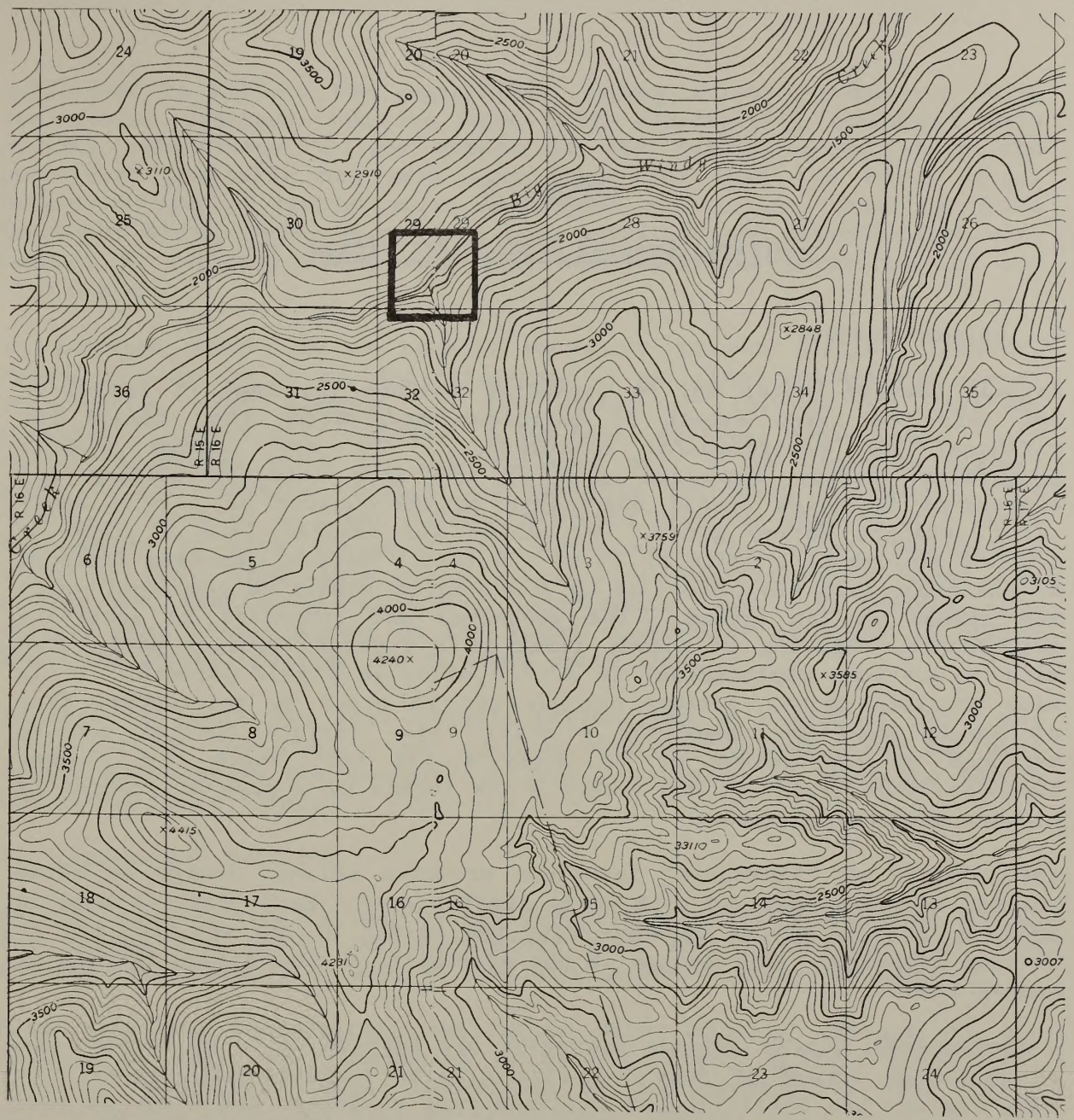


MAP B-1

PROPOSED MOUNT PRINDLE
RESEARCH NATURAL AREA

SCALE 1:63360

0 1 2 3 MILES



MAP B-2

PROPOSED BIG WINDY HOT SPRINGS
RESEARCH NATURAL AREA

SCALE 1:63360

APPENDIX C

Mineral Leasing Related Activities

1. Seismic Surveys

Seismic surveys (which may be conducted whether the land is leased or not) are the first aspect of petroleum exploration that create the potential for environmental disturbance. The most common onshore geophysical survey technique used in the area involves setting off explosives in holes spaced one-eighth to one-quarter of a mile apart along straight survey lines. The holes are drilled from a truck or tracked vehicle to a depth of 75 to 120 feet. Seismic impulses produced by the explosives are picked up by a string of sensitive geophones which are spread on the ground. The geophones are connected to recording instruments. Spacing of survey lines in a typical frontier area (area with no previous exploration) is 3 to 6 miles in a grid pattern. It is also possible to use surface charges set in place by helicopter, thus dispensing with the need for a drill rig. Surface charges can be exploded on the ground or on poles a few feet above the ground. Explosive wire payed out and buried a few inches by a plow or tractor is another alternative method.

The vibrator or "Vibroseis" technique produces seismic energy by using several vehicles equipped with large steel plates. Each plate is held in contact with the ground by supporting the weight of its vehicle, and it is then vibrated. This system is not adaptable to mountainous terrain or swampy land.

A conventional winter seismic operation may involve 40 to 50 workers and an equipment spread of four D-7 size crawler tractors with extra wide snow tracks, two Terri-Tire or Rolligon-type vehicles, and three or four smaller tracked personnel carriers. Camp quarters, repair shops, and seismic recording units are mounted on sleds and seismic crews, depending upon location, can be resupplied by light fixed-wing aircraft and helicopters, and when the ice is thick enough, by Hercules C-130 aircraft landing on runways constructed on lake surfaces.

In a regional seismographic survey, a local village airstrip often is used as a staging area. Equipment can be flown in and then transported cross-country in a train or caravan. When operative, the camp is usually moved every day. In a survey requiring more detailed data in smaller areas, the camp may be moved only once or twice during the program. In the latter case, workers are ferried daily from camp to the work site.

On the tundra of the arctic plain, seismic operations always have been restricted to winter months when the ground is frozen and snow cover is

sufficient to protect the vegetation. Summer seismic operations using low ground pressure vehicles have been successfully conducted with minimal disturbance to the tundra in the Bethel Basin, where the permafrost generally has much less gound ice than the North Slope. However an area of discontinuous permafrost, such as the Steese and White Mountains block, tends to be even more sensitive and unpredictable with respect to certain disturbances than the continuous permafrost of the high arctic.

In forested areas, it is usually necessary to cut trails. However, forest cutting can be avoided altogether or minimized through the use of helicopters. For example, in the winter of 1979-80, an airborne geophysical survey was conducted in the Kenai National Moose Range. This survey technique, which has been employed only a few times in Alaska, used surface dynamite charges and portable recording equipment. The operation involved no clear cutting and used airborne support with three helicopters to move equipment and personnel. The survey required a 1/4-mile offset from lakes and streams. If concentrations of moose were encountered, the survey schedule or line sequence had to be changed. The charges were placed either on the ground surface or on poles 18 inches above the ground; charges had to avoid prime trees.

It must be emphasized that seismic exploration as described above may occur even if the area is not open to mineral leasing. The BLM must review and approve the geophysical permit and plan of operation before the survey takes place.

2. Exploratory Drilling

As with seismic exploration, before exploratory drilling can take place, the lessee must submit an exploratory plan for approval by BLM. An environmental assessment will be completed before the plan is approved.

Activities and construction associated with drilling exploratory and delineation wells vary according to well location, terrain conditions, soil characteristics (e.g., permafrost or non-permafrost), well depth, access to the site, and type of drill rig. Despite this variation, the following sequence of activities is typically involved:

(1) Fly in construction equipment to nearest public airstrip.

(2) Transport of construction equipment cross-country to area of operation.

(3) Build access roads to gravel and water sources.

(4) Build temporary ice runway or permanent airstrip (5,000 ft.).

(5) Fly in or bring overland construction camp and additional construction equipment.

(6) Build access road to drill pad.

(7) Build drill pad.

(8) Mobilize and transport drill rig (in sections), casing, cement, etc., by road or air, or combination of air and overland transport.

(9) Rig up (assemble drill rig and prepare for drilling; assemble workers and supplies).

(10) Drill, core, and test (if required).

(11) Clean-up drill site, fill in reserve pit, rehabilitate as necessary.

The sequence of activities for a shallow- or medium-depth well of about 10,000 feet can be completed in one winter season. For a deeper well, requiring more than one winter season to drill, two operational plans have been employed in the National Petroleum Reserve, Alaska (NPRA). The first one involves site preparation and partial rig-up during the first winter, followed by closure of the well-site at the end of April. In November, the camp is reopened, and ice airstrips and ice roads are rebuilt. Drilling occurs from December through April. The second operational plan involves construction of an all-season gravel airstrip, roads, and pad during the first winter, followed by transport of the rig to the site in May and drilling through the summer and following winter.

If the drilling operation is to extend into the summer months, permanent roads, airstrip, drill pad, and campsite must be built upon a substantial overlay of gravel. This is true in both permafrost and non-permafrost regions, although load-bearing requirements are the main concern in non-permafrost areas.

In permafrost areas, where thawing of the ice-rich soil must be prevented to avoid erosion problems, a typical well pad is about 5 feet thick and requires about 45,000 cubic yards of borrow material. In non-permafrost areas, it is not necessary to maintain the thermal regime under the drill pad. Nonetheless, up to 4 feet of gravel may be necessary to provide sufficient bearing capacity for the drill rig. Part of the material for the pad may come from excavation of the reserve pit. In permafrost areas, a pad 5 feet thick (as with roads and airstrips) is generally sufficient to assure year-round stability. Another construction method that has been successful in permafrost areas is the "thin-pad" method, in which several feet of gravel are replaced by a layer of rigid insulation. Regardless of the technique used, pad preparation should involve preservation of the original tundra cover.

The reserve pit (or sump) is the place of disposal for drilling fluids, mud, and cuttings; and it provides a containment for fluids if problems develop during drilling. Care in the location, construction, and

restoration of the sump is important for containment of drilling fluid. Sump size is related to the planned depth of the well. (A 10,000-foot well, for example, requires approximately 140,000 cubic feet of drilling fluid.) Sump construction typically involves digging a pit about 5 feet deep, which, combined with a pad thickness of 5 feet, provides a depth of 10 feet for the sump.

In a remote area where two drilling crews will be housed on site, camp facilities must accommodate 30 to 40 workers. Some local employment from nearby communities is possible, but since many jobs on a drill rig are highly specialized, complete drilling crews are often assembled by the operator from available oil field professionals.

3. Development Scenarios

Development schemes vary widely, as each new field is discovered. Specific development requirements are dictated by factors such as reservoir size, configuration, depth, pressure, porosity, permeability, quality of hydrocarbons, eventual transportation modes, product utilization, and resource ownership. Because of the lack of geological and geophysical information about this area, any foreseeable development scenario is highly speculative. Therefore, a description of a probable field development scenario with surface facilities is presented here in order to indicate the general magnitude of impacts. As with seismic exploration and drilling, any development requires a development plan and further analysis of environmental impacts.

U.S. Geological Survey studies of onshore oil and gas provinces in Alaska give the Steese and White Mountains block only a slight chance of containing commercial quantities of gas, with an even lesser chance of containing significant quantities of oil. The lower investment and development requirements of gas, coupled with local marketing possibilities, make gas a much better (though still unlikely) prospect for development than oil. Therefore, the following discussion will describe development activities around a small- to medium-sized gas field. This hypothesis assumes that the total estimated recoverable hydrocarbon resources of a large province would occur in one field in a marginal part of the province.

For the purposes of this discussion, a hypothetical field containing 500 million thousand cubic feet of gas is located in the northern part of the area. The approximate acreage within the field is 20,000 acres. Three well pads, each containing three to four individual wells along with their own treating facilities, would be spaced throughout the field. Spur roads would connect the well pads to a primary road leading to the airstrip and central processing facilities. Table 1 summarizes the regional surface disturbance estimated for production from this hypothetical field.

ACRES OF SURFACE DISTURBANCE CAUSED BY DEVELOPMENT OF HYPOTHETICAL GAS FIELD

Table 1

Facility	Quantity	Disturbed Acres
Well pads	3 (15 acres each)	45
Spur roads	3 (15 miles total)	72
Primary roads	1 (6 miles)	36
Gathering lines	3 (10 miles total)	50
Main pipeline	1 (10 miles)	50
Central processing facility	1	50
Airstrip	1	30
Material sources	2	100
	Total	433

Pipeline construction is necessary to transport gas to local markets, such as nearby communities or to Fairbanks. For a pipeline up to 6 inches in diameter, a construction crew of up to 300 men may be used. Working at a rate of 2 to 3 miles a day, the crew would be housed in temporary quarters for several months.

To facilitate laying pipe in marshy areas, construction of a pipeline should take place in winter, to take advantage of frozen conditions. a right-of-way of 30 to 50 feet would be cleared of vegetation, and pipe would be buried in a ditch which would allow a minimum of 36 inches of cover. Gathering lines between well-sites and a central processing facility could easily be routed along spur roads.

Surface disturbance from pipeline rights-of-way would approximate 5 acres per mile of pipeline. Pipelines can be routed so as to avoid areas of socio-economic or archaeological importance. Proper revegetation techniques can be employed in order to reestablish ground cover.

Production personnel may be based out of local communities or Fairbanks. If not, essential personnel will reside on-site permanently, or be rotated in shifts lasting up to 20 days. Local employment is possible, due to the long-term need for personnel in a producing field, and, therefore, the possibility for job training.

APPENDIX D

Stipulations for the Mitigation of Impacts to Fisheries

1. Stream crossing (low-water crossing) shall take place at designated locations only and shall be constructed and maintained so as to minimize erosion and to permit the passage of fish.

2. There shall be no instream use of vehicles except at designated crossings.

3. Fuel storage and refueling operations shall take place at least 100 feet from any stream or lake, and fuel storage areas shall be diked and lined with impermeable material.

4. Buffer strips at least 100 feet wide shall be maintained around streams or lakes where physical alterations are planned.

5. Culverts placed in fish streams shall be placed so as to allow for the passage of fish.

6. All placer mines and other surface disturbances shall be rehabilitated in such a manner as to minimize future erosion.

7. No industrial use of water shall be permitted between December 1 and April 15.

8. Screens of no larger than 1/2 inch mesh shall be placed on the intake hoses of all water pumps when pumping water from streams or lakes.

9. No wastewater or sewage discharge shall be discharged into water bodies.

Recommended Protection Measures for Peregrine Falcons During The Nesting Period

The following protection measures are intended as general guidelines and may not be appropriate in all situations. The level of protection needed may vary with topography, vegetation and the sensitivity of individual birds to human activity. When feasible, proposed activities should be examined on a case by case basis by a biologist knowledgeable of the habits and behavior of peregrine falcons.

A. Within 1 mile of nest sites:
   1. Require aircraft to maintain minimum altitudes of 1,500 feet above nest level from April 15 through August 31.
   2. Prohibit all ground level activity from April 15 through August 31 except on existing thoroughfares.
   3. Prohibit habitat alterations or the construction of permanent facilities.

B. Within 2 miles of nest sites:
   1. Prohibit activities having high noise levels from April 15 through August 31.
   2. Prohibit permanent facilities having high noise levels, sustained human activity, or altering limited, high quality habitat (e.g., ponds, lakes, wetlands and riparian habitats).

C. Within 15 miles of nest sites:
   1. Prohibit alteration of limited, high quality habitat which could detrimentally and significantly reduce prey availability. Of particular concern are ponds, lakes, wetlands and riparian habitats.
   2. Prohibit use of pesticides—The only exception may be limited non-aerial application of approved non-persistent insecticides at supply bases.

Subpart 3809—Surface Management

AUTHORITY: Secs. 2319 (30 U.S.C. 22) and 2478 (43 U.S.C. 1201) of the Revised Statutes and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.), unless otherwise noted.

SOURCE: 45 FR 78909, Nov. 26, 1980, unless otherwise noted.

NOTE: The information collection requirements contained in subpart have been approved by the Office of Management and Budget under 44 U.S.C. 3507 and assigned clearance number 1004-0104. This information is needed to permit the authorized officer to determine if a plan of operation is needed to protect the public lands and their resources and to determine if the plan of operations, if one is required, is adequate. The obligation to respond is required to obtain a benefit.

[48 FR 8816, Mar. 2, 1983]

GENERAL

§ 3809.0-1 Purpose.

The purpose of this subpart is to establish procedures to prevent unnecessary or undue degradation of Federal lands which may result from operations authorized by the mining laws.

§ 3809.0-2 Objectives.

The objectives of this regulation are to:

(a) Provide for mineral entry, exploration, location, operations, and purchase pursuant to the mining laws in a manner that will not unduly hinder such activities but will assure that these activities are conducted in a manner that will prevent unnecessary or undue degradation and provide protection of nonmineral resources of the Federal lands;

(b) Provide for reclamation of disturbed areas; and

(c) Coordinate, to the greatest extent possible, with appropriate State agencies, procedures for prevention of unnecessary or undue degradation with respect to mineral operations.

§ 3809.0-3 Authority.

(a) Section 2319 of the Revised Statutes (30 U.S.C. 22 *et seq.*) provides that exploration, location and purchase of valuable mineral deposits, under the mining laws, on Federal lands shall be "under regulations prescribed by law," and section 2478 of the Revised Statutes, as amended (43 U.S.C. 1201), provides that those regulations shall be issued by the Secretary.

(b) Sections 302, 303, 601, and 603 of the Federal and Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*) require the Secretary to take any action, by regulation or otherwise, to prevent unnecessary or undue degradation of the Federal lands, provide for enforcement of those regulations, and direct the Secretary to manage the California Desert Conservation Area under reasonable regulations which will protect the scenic, scientific, and environmental values against undue impairment, and to assure

against pollution of streams and waters.

(c) The Act of July 23, 1955 (30 U.S.C. 612), provides that rights under mining claims located after July 23, 1955, shall prior to issuance of patent therefor, be subject to the right of the United States to manage and dispose of the vegetative surface resources and to manage other surface resources. The Act also provides that "Any mining claim hereafter located under the mining laws of the United States shall not be used, prior to issuance to patent therefor, for any purposes other than prospecting, mining or processing operations and uses reasonably incident thereto."

(d) Section 9 of the Wild and Scenic Rivers Act (16 U.S.C. 1280) provides that regulations issued shall, among other things, provide safeguards against pollution of the rivers involved and unnecessary impairment of the scenery within the area designated for potential addition to, or an actual component of the national wild and scenic rivers system.

§ 3809.0–5 Definitions.

As used in this subpart, the term:

(a) "Authorized officer" means any employee of the Bureau of Land Management to whom authority has been delegated to perform the duties described in this subpart.

(b) "Casual Use" means activities ordinarily resulting in only negligible disturbance of the Federal lands and resources. For example, activities are generally considered "casual use" if they do not involve the use of mechanized earth moving equipment or explosives or do not involve the use of motorized vehicles in areas designated as closed to off-road vehicles as defined in Subpart 8340 of this title.

(c) "Federal lands" means lands subject to the mining laws including, but not limited to, the certain "public lands" defined in section 103 of the Federal Land Policy and Management Act of 1976. Federal lands does not include lands in the National Park System, National Forest System, and the National Wildlife Refuge System, nor does it include acquired lands, Stockraising Homestead lands or lands where only the mineral interest is reserved to the United States or lands under Wilderness Review and administered by the Bureau of Land Management (these lands are subject to the 43 CFR Part 3802 regulations).

(d) "Mining claim" means any unpatented mining claim, millsite, or tunnel site located under the mining laws and those patented mining claims and millsites located in the California Desert Conservation Area which have been patented subsequent to the enactment of the Federal Land Policy and Management Act of October 21, 1976.

(e) "Mining laws" means the Lode Law of July 26, 1866, as amended (14 Stat. 251); the Placer Law of July 9, 1870, as amended (16 Stat. 217); and the Mining Law of May 10, 1872, as amended (17 Stat. 91); and all laws supplementing and amending those laws, including among others the Building Stone Act of August 4, 1892, as amended (27 Stat. 348); and the Saline Placer Act of January 31, 1901 (31 Stat. 745).

(f) "Operations" means all functions, work, facilities, and activities in connection with prospecting, discovery and assessment work, development, extraction, and processing of mineral deposits locatable under the mining laws and all other uses reasonably incident thereto, whether on a mining claim or not, including but not limited to the construction of roads, transmission lines, pipelines, and other means of access for support facilities across Federal lands subject to these regulations.

(g) "Operator" means a person conducting or proposing to conduct operations.

(h) "Person" means any citizen of the United States or person who has declared the intention to become such and includes any individual, partnership, corporation, association, or other legal entity.

(i) "Project area" means a single tract of land upon which an operator is, or will be, conducting operations. It may include one mining claim or a group of mining claims under one ownership on which operations are or will be conducted, as well as Federal lands on which an operator is exploring or prospecting prior to locating a mining claim.

(j) "Reclamation" means taking such reasonable measures as will prevent unnecessary or undue degradation of the Federal lands, including reshaping land disturbed by operations to an appropriate contour and, where necessary, revegetating disturbed areas so as to provide a diverse vegetative cover. Reclamation may not be required where the retention of a stable highwall or other mine workings is needed to preserve evidence of mineralization.

(k) "Unnecessary or undue degradation" means surface disturbance greater than what would normally result when an activity is being accomplished by a prudent operator in usual, customary, and proficient operations of similar character and taking into consideration the effects of operations on other resources and land uses, including those resources and uses outside the area of operations. Failure to initiate and complete reasonable mitigation measures, including reclamation of disturbed areas or creation of a nuisance may constitute unnecessary or undue degradation. Failure to comply with applicable environmental protection statutes and regulations thereunder will constitute unnecessary or undue degradation. Where specific statutory authority requires the attainment of a stated level of protection or reclamation, such as in the California Desert Conservation Area, Wild and Scenic Rivers, areas designated as part of the National Wilderness System administered by the Bureau of Land Management and other such areas, that level of protection shall be met.

(Sec. 2319 (30 U.S.C. 22) and sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.0-6 Policy.

Consistent with section 2 of the Mining and Mineral Policy Act of 1970 and section 102(a) (7), (8), and (12) of the Federal Land Policy and Management Act, it is the policy of the Department of the Interior to encourage the development of Federal mineral resources and reclamation of disturbed lands. Under the mining laws a person has a statutory right, consistent with Departmental regulations, to go upon the open (unappropriated and unreserved) Federal lands for the purpose of mineral prospecting, exploration, development, extraction and other uses reasonably incident thereto. This statutory right carries with it the responsibility to assure that operations include adequate and responsible measures to prevent unnecessary or undue degradation of the Federal lands and to provide for reasonable reclamation.

§ 3809.1 Operations.

§ 3809.1-1 Reclamation.

All operations, whether casual, under a notice, or by a plan of operations, shall be reclaimed as required in this title.

§ 3809.1-2 Casual use—negligible disturbance.

No notification to or approval by the authorized officer is required for casual use operations. However, casual use operations are subject to monitoring by the authorized officer to ensure that unnecessary or undue degradation of Federal lands will not occur.

§ 3809.1-3 Notice—disturbance of 5 acres or less.

(a) All operators on project areas whose operations, including access across Federal lands to the project area, cause a cumulative surface disturbance of 5 acres or less during any calendar year shall notify the authorized officer in the District office of the Bureau of Land Management having jurisdiction over the land in which the claim(s) or project area is located. Prior to conducting additional operations under a subsequent notice covering substantially the same ground, the operator shall have completed reclamation of operations which were conducted under any previous notice. Notification of such activities, by the operator, shall be made at least 15 calendar days before commencing operations under this subpart by a written notice or letter.

(b) Approval of a notice, by the authorized officer, is not required. Consultation with the authorized officer may be required under § 3809.1-3(c)(3) of this title when the construction of access routes are involved. Notices properly filed under this section constitute authorization under part 8340 of this title (Off-Road Vehicles).

(c) The notice or letter shall include:

(1) Name and mailing address of the mining claimant and operator, if other than the claimant. Any change of operator or in the mailing address of the mining claimant or operator shall be reported promptly to the authorized officer;

(2) When applicable, the name of the mining claim(s), and serial number(s) assigned to the mining claim(s) recorded pursuant to Subpart 3833 of this title on which disturbance will likely take place as a result of the operations;

(3) A statement describing the activities proposed and their location in sufficient detail to locate the activities on the ground, and giving the approximate date when operations will start. The statement shall include a description and location of access routes to be constructed and the type of equipment to be used in their construction. Access routes shall be planned for only the minimum width needed for operations and shall follow natural contours, where practicable, to minimize cut and fill. When the construction of access routes involves slopes which require cuts on the inside edge in excess of 3 feet, the operator may be required to consult with the authorized officer concerning the most appropriate location of the access route prior to commencing operations;

(4) A statement that reclamation of all areas disturbed will be completed to the standard described in § 3809.1-3(d) of this title and that reasonable measures will be taken to prevent unnecessary or undue degradation of the Federal lands during operations.

(d) The following standards govern activities conducted under a notice:

(1) Access routes shall be planned for only the minimum width needed for operations and shall follow natural contours, where practicable to minimize cut and fill.

(2) All tailings, dumps, deleterious materials or substances, and other waste produced by the operations shall be disposed of so as to prevent unnecessary or undue degradation and in accordance with applicable Federal and State Laws.

(3) At the earliest feasible time, the operator shall reclaim the area disturbed, except to the extent necessary to preserve evidence of mineralization, by taking reasonable measures to prevent or control on-site and off-site damage of the Federal lands.

(4) Reclamation shall include, but shall not be limited to:

(i) Saving of topsoil for final application after reshaping of disturbed areas have been completed;

(ii) Measures to control erosion, landslides, and water runoff;

(iii) Measures to isolate, remove, or control toxic materials;

(iv) Reshaping the area disturbed, application of the topsoil, and revegetation of disturbed areas, where reasonably practicable; and

(v) Rehabilitation of fisheries and wildlife habitat.

(5) When reclamation of the disturbed area has been completed, except to the extent necessary to preserve evidence of mineralization, the authorized officer shall be notified so that an inspection of the area can be made.

(e) Operations conducted pursuant to this subpart are subject to monitoring by the authorized officer to ensure that operators are conducting operations in a manner which will not cause unnecessary or undue degradation.

(f) Failure of the operator to prevent undue or unnecessary degradation or to complete reclamation to the standards described in this subpart may cause the operator to be subject to a notice of noncompliance as described in § 3809.3-2 of this title.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.1-4 Plan of operations—when required.

An approved plan of operations is required prior to commencing:

(a) Operations which exceed the disturbance level (5 acres) described in § 3809.1-3 of this title.

(b) Any operation, except casual use, in the following designated areas:

(1) Lands in the California Desert Conservation Area designated as 'controlled' or 'limited' use areas by the California Desert Conservation Area plan;

(2) Areas designated for potential addition to, or an actual component of the national wild and scenic rivers system,

(3) Designated Areas of Critical Environmental Concern;

(4) Areas designated as part of the National Wilderness Preservation System and administered by the Bureau of Land Management;

(5) Areas designated as "closed" to off-road vehicle use as defined in Subpart 8340 of this title.

(c) Plans properly filed and approved under this section constitute authorization under Part 8340 of this title (Off-Road Vehicles).

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.1-5 Filing and contents of plan of operations.

(a) A plan of operations must be filed in the District Office of the Bureau of Land Management having jurisdiction over the Federal lands in which the claim(s) or project area is located.

(b) No special form is required for filing a plan.

(c) The plan shall include:

(1) The name and mailing address of the operator (and claimant if not the operator). Any change of operator or change in the mailing address shall be promptly reported to the authorized officer;

(2) A map, preferably a topographic map, or sketch showing existing and/or proposed routes of access, aircraft landing areas, or other means of access, and size of each area where surface disturbance will occur;

(3) When applicable, the name of the mining claim(s) and mining claim serial numbers assigned to the mining claim(s) recorded pursuant to Subpart 3833 of this title.

(4) Information sufficient to describe or identify the type of operations proposed, how they will be conducted and the period during which the proposed activity will take place;

(5) Measures to be taken to prevent unnecessary or undue degradation and measures to reclaim disturbed areas resulting from the proposed operations, including the standards listed in § 3809.1-3(d) of this title. Where an operator advises the authorized officer that he/she does not have the necessary technical resources to develop such measures the authorized officer will assist the operator in developing such measures. If an operator submits reclamation measures, the authorized officer will ensure that the operator's plan is sufficient to prevent unnecessary or undue degradation. All reclamation measures developed by the operator, or by the authorized officer in conjunction with the operator, shall become a part of the plan of operations.

(6) Measures to be taken during extended periods of nonoperation to maintain the area in a safe and clean manner and to reclaim the land to avoid erosion and other adverse impacts. If not filed at the time of plan submittal, this information shall be filed with the authorized officer whenever the operator anticipates a period of nonoperation.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.1-6 Plan approval.

(a) A proposed plan of operations shall be submitted to the authorized officer, who shall promptly acknowledge receipt thereof to the operator. The authorized officer shall, within 30 days of such receipt, analyze the proposal in the context of the requirement to prevent unnecessary or undue degradation and provide for reason-

able reclamation, and shall notify the operator:

(1) That the plan is approved; or

(2) Of any changes in or additions to the plan necessary to meet the requirements of these regulations; or

(3) That the plan is being reviewed, but that a specified amount of time, not to exceed an additional 60 days, is necessary to complete the review, setting forth the circumstances which justify additional time for review. However, days during which the area of operations is inaccessible for inspection shall not be counted when computing the 60 day period; or

(4) That the plan cannot be approved until 30 days after a final environmental statement has been prepared and filed with the Environmental Protection Agency; or

(5) That the plan cannot be approved until the authorized officer has complied with section 106 of the National Historic Preservation Act or section 7 of the Endangered Species Act.

(b) The authorized officer shall consult with the appropriate official of the bureau or agency having surface management responsibilities where such responsibility is not exercised by the Bureau of Land Management. Prior to plan approval the authorized officer shall obtain the concurrence of such appropriate official to the terms and conditions that may be needed to prevent unnecessary or undue degradation.

(c) The authorized officer shall undertake an appropriate level of cultural resource inventory of the area to be disturbed. The inventory shall be completed within the time allowed by these regulations for approval of the plan (30 days). The operator is not required to do the inventory but may hire an archaeologist approved by the Bureau of Land Management in order to complete the inventory more expeditiously. The responsibility for and cost of salvage of cultural resources discovered during the inventory shall be the Federal Government's. The responsibility of avoiding adverse impacts on those cultural resources discovered during the inventory shall be the operator's.

(d) Pending final approval of the plan, the authorized officer shall approve any operations that may be necessary for timely compliance with requirements of Federal and State laws, subject to any terms and conditions that may be needed to prevent unnecessary or undue degradation.

(e) In the event of a change of operators involving an approved plan of operations, the new operator shall satisfy the requirements of § 3809.1-9 of this title as it relates to bonding.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.1-7 Modification of plan.

(a) At any time during operations under an approved plan, the operator on his/her own initiative may modify the plan or the authorized officer may request the operator to do so.

(b) A significant modification of an approved plan must be reviewed and approved by the authorized officer in the same manner as the initial plan.

(c)(1) If, when requested to do so by the authorized officer, the operator does not furnish a proposed modification within a reasonable time, usually 30 days, the authorized officer may recommend to the State Director that the operator be required to submit a proposed modification of the plan. The recommendation of the authorized officer shall be accompanied by a statement setting forth the facts and the reasons for the recommendations.

(2) In acting upon such recommendations the State Director shall determine, within 30 days, whether:

(i) All reasonable measures were taken by the authorized officer at the time the plan was approved to ensure that the proposed operations would not cause unnecessary or undue degradation of the Federal land;

(ii) The disturbance from the operations of the plan as approved or from unforeseen circumstances is or may become of such significance that modification of the plan is essential in order to prevent unnecessary or undue degradation; and

(iii) The disturbance can be minimized using reasonable means.

(3) Once the matter has been sent to the State Director, an operator is not required to submit a proposed modification of an approved plan until a de-

termination is made by the State Director. Where the State Director determines that a plan shall be modified, the operator shall timely submit a modified plan to the authorized officer for review and approval.

(4) Operations may continue in accordance with the approved plan until a modified plan is approved, unless the State Director determines that the operations are causing unnecessary or undue degradation to the land. The State Director shall advise the operator of those reasonable measures needed to avoid such degradation and the operator shall immediately take all necessary steps to implement those measures within a reasonable period established by the State Director.

§ 3809.1-8 Existing operations.

(a) Persons conducting operations on the effective date of these regulations, who would be required to submit a notice under § 3809.1-3 or a plan of operations under § 3809.1-4 of this title may continue operations but shall, within:

(1) 30 days submit a notice with required information outlined in § 3809.1-3 of this title for operations where 5 acres or less will be disturbed during a calendar year; or

(2) 120 days submit a plan in those areas identified in § 3809.1-4 of this title. Upon a showing of good cause, the authorized officer may grant an extension of time, not to exceed an additional 180 days, to submit a plan.

(b) Operations may continue according to the submitted plan during its review. If the authorized officer determines that operations are causing unnecessary or undue degradation of the Federal lands involved, the authorized officer shall advise the operator of those reasonable measures needed to avoid such degradation, and the operator shall take all necessary steps to implement those measures within a reasonable time recommended by the authorized officer. During the period of an appeal, if any, operations may continue without change, subject to other applicable Federal and State laws.

(c) Upon approval of a plan by the authorized officer, operations shall be conducted in accordance with the approval plan.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.1-9 Bonding requirements.

(a) No bond shall be required for operations that constitute casual use (§ 3809.1-2) or that are conducted under a notice (§ 3809.1-3 of this title).

(b) Any operator who conducts operations under an approved plan of operations as described in § 3809.1-5 of this title may, at the discretion of the authorized officer, be required to furnish a bond in an amount specified by the authorized officer. The authorized officer may determine not to require a bond in circumstances where operations would cause only minimal disturbance to the land. In determining the amount of the bond, the authorized officer shall consider the estimated cost of reasonable stabilization and reclamation of areas disturbed. In lieu of the submission of a separate bond, the authorized officer may accept evidence of an existing bond pursuant to State law or regulations for the same area covered by the plan of operations, upon a determination that the coverage would be equivalent to that provided in this section.

(c) In lieu of a bond, the operator may deposit and maintain in a Federal depository account of the United States Treasury, as directed by the authorized officer, cash in an amount equal to the required dollar amount of the bond or negotiable securities of the United States having a market value at the time of deposit of not less than the required dollar amount of the bond.

(d) In place of the individual bond on each separate operation, a blanket bond covering statewide or nationwide operations may be furnished at the option of the operator, if the terms and conditions, as determined by the authorized officer, are sufficient to comply with these regulations.

(e) In the event that an approved plan is modified in accordance with § 3809.1-7 of this title, the authorized officer shall review the initial bond for adequacy and, if necessary, adjust the amount of the bond to conform to the plan as modified.

(f) When all or any portion of the reclamation has been completed in ac-

cordance with the approved plan, the operator may notify the authorized officer that such reclamation has occurred and that she/he seeks a reduction in bond or Bureau approval of the adequacy of the reclamation, or both. Upon any such notification, the authorized officer shall promptly inspect the reclaimed area with the operator. The authorized officer shall then notify the operator, in writing, whether the reclamation is acceptable. When the authorized officer has accepted as completed any portion of the reclamation, the authorized officer shall authorize that the bond be reduced proportionally to cover the remaining reclamation to be accomplished.

(g) When a mining claim is patented, the authorized officer shall release the operator from that portion of the performance bond which applies to operations within the boundaries of the patented land. The authorized officer shall release the operator from the remainder of the performance bond, including the portion covering approved means of access outside the boundaries of the mining claim, when the operator has completed acceptable reclamation. However, existing access to patented mining claims, if across Federal lands shall continue to be regulated under the approved plan. The provisions of this subsection do not apply to patents issued on mining claims within the boundaries of the California Desert Conservation Area (See § 3809.6 of this title).

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.2 Prevention of unnecessary or undue degradation.

§ 3809.2–1 Environmental assessment.

(a) When an operator files a plan of operations or a significant modification which encompasses land not previously covered by an approved plan, the authorized officer shall make an environmental assessment or a supplement thereto to identify the impacts of the proposed operations on the lands and to determine whether an environmental impact statement is required.

(b) In conjunction with the operator, the authorized officer shall use the environmental assessment to determine the adequacy of mitigating measures and reclamation procedures included in the plan to insure the prevention of unnecessary or undue degradation of the land. If an operator advises the authorized officer that he/she is unable to prepare mitigating measures, the authorized officer, in conjunction with the operator, shall use the environmental assessment as a basis for assisting the operator in developing such measures.

(c) If, as a result of the environmental assessment, the authorized officer determines that there is "substantial public interest" in the plan, the authorized officer shall notify the operator, in writing, that an additional period of time, not to exceed the additional 60 days provided for approval of a plan in § 3809.1–6 of this title, is required to consider public comments on the environmental assessment.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.2–2 Other requirements for environmental protection.

All operations, including casual use and operations under either a notice (§ 3809.1–3) or a plan of operations (§ 3809.1–4 of this title), shall be conducted to prevent unnecessary or undue degradation of the Federal lands and shall comply with all pertinent Federal and State laws, including but not limited to the following:

(a) *Air quality.* All operators shall comply with applicable Federal and State air quality standards, including the Clean Air Act (42 U.S.C. 1857 *et seq.*).

(b) *Water quality.* All operators shall comply with applicable Federal and State water quality standards, including the Federal Water Pollution Control Act, as amended (30 U.S.C. 1151 *et seq.*).

(c) *Solid wastes.* All operators shall comply with applicable Federal and State standards for the disposal and treatment of solid wastes, including

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regulations issued pursuant to the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*). All garbage, refuse or waste shall either be removed from the affected lands or disposed of or treated to minimize, so far as is practicable, its impact on the lands.

(d) *Fisheries, wildlife and plant habitat.* The operator shall take such action as may be needed to prevent adverse impacts to threatened or endangered species, and their habitat which may be affected by operations.

(e) *Cultural and paleontological resources.* (1) Operators shall not knowingly disturb, alter, injure, or destroy any scientifically important paleontological remains or any historical or archaeological site, structure, building or object on Federal lands.

(2) Operators shall immediately bring to the attention of the authorized officer any cultural and/or paleontological resources that might be altered or destroyed on Federal lands by his/her operations, and shall leave such discovery intact until told to proceed by the authorized officer. The authorized officer shall evaluate the discoveries brought to his/her attention, take action to protect or remove the resource, and allow operations to proceed within 10 working days after notification to the authorized officer of such discovery.

(3) The Federal Government shall have the responsibility and bear the cost of investigations and salvage of cultural and paleontology values discovered after a plan of operations has been approved, or where a plan is not involved.

(f) *Protection of survey monuments.* To the extent practicable, all operators shall protect all survey monuments, witness corners, reference monuments, bearing trees and line trees against unnecessary or undue destruction, obliteration or damage. If, in the course of operations, any monuments, corners, or accessories are destroyed, obliterated or damaged by such operations, the operator shall immediately report the matter to the authorized officer. The authorized officer shall prescribe, in writing, the requirements for the restoration or reestablishment of monuments, corners, bearing and line trees.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 32934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.3 General provisions.

§ 3809.3-1 Applicability of State law.

(a) Nothing in this subpart shall be construed to effect a preemption of State laws and regulations relating to the conduct of operations or reclamation on Federal lands under the mining laws.

(b) After the publication date of these regulations the Director, Bureau of Land Management, shall conduct a review of State laws and regulations in effect or due to come into effect, relating to unnecessary or undue degradation of lands disturbed by exploration for, or mining of, minerals locatable under the mining laws.

(c) The Director may consult with appropriate representatives of each State to formulate and enter into agreements to provide for a joint Federal-State program for administration and enforcement. The purpose of such agreements is to prevent unnecessary or undue degradation of the Federal lands from operations which are conducted under the mining laws, to prevent unnecessary administrative delay and to avoid duplication of administration and enforcement of laws. Such agreements may, whenever possible, provide for State administration and enforcement of such programs.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.3-2 Noncompliance.

(a) Failure of an operator to file a notice under § 3809.1-3 of this title or a plan of operations under § 3809.1-4 of this title will subject the operator, at the discretion of the authorized officer, to being served a notice of noncompliance or enjoined from the continuation of such operations by a court order until such time as a notice or plan is filed with the authorized of-

ficer. The operator shall also be responsible to reclaim operations conducted without an approved plan of operations or prior to the filing of a required notice.

(b) Failure to reclaim areas disturbed by operations under § 3809.1–3 of this title is a violation of these regulations.

(1) Where an operator is conducting operations covered by 3809.1–3 (notice) of this title and fails to comply with the provisions of that section or properly conduct reclamation according to standards set forth in 3809.1–3(d) of this title, a notice of noncompliance shall be served by delivery in person to the operator or his/her authorized agent, or by certified mail addressed to his/her address of record.

(2) Operators conducting operations under an approved plan of operations who fails to follow the approved plan of operations may be subject to a notice of noncompliance. A notice of noncompliance shall be served in the same manner as described in § 3809.3–2(b)(1) of this section.

(c) All operators who conduct operations under a notice pursuant to § 3809.1–3 and a plan pursuant to § 3809.1–4 of this title on Federal lands without taking the actions specified in a notice of noncompliance within the time specified therein may be enjoined by an appropriate court order from continuing such operations and be liable for damages for such unlawful acts.

(d) A notice of noncompliance shall specify in what respects the operator is failing or has failed to comply with the requirements of applicable regulations, and shall specify the actions which are in violation of the regulations and the actions which shall be taken to correct the noncompliance and the time, not to exceed 30 days, within which corrective action shall be started.

(e) Failure of an operator to take necessary actions on a notice of noncompliance, may constitute justification for requiring the submission of a plan of operations under § 3809.1–5 of this title, and mandatory bonding for subsequent operations which would otherwise be conducted pursuant to a notice under § 3809.1–3 of this title.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.3–3 Access.

(a) An operator is entitled to access to his operations consistent with provisions of the mining laws.

(b) Where a notice or a plan of operations is required, it shall specify the location of access routes for operations and other conditions necessary to prevent unnecessary or undue degradation. The authorized officer may require the operator to use existing roads to minimize the number of access routes, and, if practicable, to construct access roads within a designated transportation or utility corridor. When commercial hauling is involved and the use of an existing road is required, the authorized officer may require the operator to make appropriate arrangements for use and maintenance.

§ 3809.3–4 Fire prevention and control.

The operator shall comply with all applicable Federal and State fire laws and regulations, and shall take all reasonable measures to prevent and suppress fires in the area of operations.

§ 3809.3–5 Maintenance and public safety.

During all operations, the operator shall maintain his structures, equipment, and other facilities in a safe and orderly manner. Hazardous sites or conditions resulting from operations shall be marked by signs, fenced, or otherwise identified to alert the public in accordance with applicable Federal and State laws and regulations.

§ 3809.3–6 Inspection.

The authorized officer may periodically inspect operations to determine if the operator is complying with these regulations. The operator shall permit the authorized officer access for this purpose.

§ 3809.3–7 Periods of non-operation.

All operators shall maintain the site, structures and other facilities of the operations in a safe and clean condition during any non-operating periods. All operators may be required, after an extended period of non-operation

for other than seasonal operations, to remove all structures, equipment and other facilities and reclaim the site of operations, unless he/she receives permission, in writing, from the authorized officer to do otherwise.

§ 3809.4 Appeals.

(a) Any operator adversely affected by a decision of the authorized officer made pursuant to the provisions of this subpart shall have a right of appeal to the State Director, and thereafter to the Board of Land Appeals, Office of Hearings and Appeals, pursuant to Part 4 of this title, if the State Director's decision is adverse to the appellant.

(b) No appeal shall be considered unless it is filed, in writing, in the office of the authorized officer who made the decision from which an appeal is being taken, within 30 days after the date of receipt of the decision. A decision of the authorized officer from which an appeal is taken to the State Director shall be effective during the pendency of an appeal. A request for a stay may accompany the appeal.

(c) The appeal to the State Director shall contain:

(1) The name and mailing address of the appellant.

(2) When applicable, the name of the mining claim(s) and serial number(s) assigned to the mining claims recorded pursuant to Subpart 3833 of this title which are subject to the appeal.

(3) A statement of the reasons for the appeal and any arguments the appellant wishes to present which would justify reversal or modification of the decision.

(d) The State Director shall promptly render a decision on the appeal. The decision shall be in writing and shall set forth the reasons for the decision. The decision shall be sent to the appellant by certified mail, return receipt requested.

(e) The decision of the State Director, when adverse to the appellant, may be appealed to the Board of Land Appeals, Office of Hearings and Appeals, pursuant to Part 4 of this title.

(f) Any party, other than the operator, aggrieved by a decision of the authorized officer shall utilize the appeals procedures in Part 4 of this title. The filing of such an appeal shall not stop the authorized officer's decision from being effective.

(g) Neither the decision of the authorized officer nor the State Director shall be construed as final agency action for the purpose of judicial review of that decision.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.5 Public availability of information.

(a) Information and data submitted and specifically identified by the operator as containing trade secrets or confidential or privileged commercial or financial information shall not be available for public examination. Other information and data submitted by the operator shall be available for examination by the public at the office of the authorized officer in accordance with the provisions of the Freedom of Information Act.

(b) The determination concerning specific information which may be withheld from public examination shall be made in accordance with the rules in 43 CFR Part 2.

§ 3809.6 Special provisions relating to mining claims patented within the boundaries of the California Desert Conservation Area.

In accordance with section 601(f) of the Federal Land Policy and Management Act of October 21, 1976, all patents issued on mining claims located within the boundaries of the California Desert Conservation Area after the enactment of the Federal Land Policy and Management Act shall be subject to the regulations in this part, including the continuation of a plan of operations and of bonding with respect to the land covered by the patent.

APPENDIX G

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Alaska State Office
701 C Street, Box 13
Anchorage, Alaska 99513

IN REPLY REFER TO

1606.3 (933)
ANILCA

May 11, 1984

Instruction Memorandum No. AK 84-339
Expires: 9/30/85

To: DM's, DSD's, M-AFS, and Public Affairs

From: State Director, Alaska

Subject: Policy for Alaska National Interest Lands Conservation Act (ANILCA), Section 810 Compliance

We have been following an interim policy for fulfilling the requirements of ANILCA Section 810 (Subsistence), since March 5, 1981. Recent events have indicated a need to revise that policy. The policy/procedure contained herein replaces IM AK 81-114 and is effective immediately. This policy was developed from the BLM-AK Subsistence Workshop, DOI NPR-A court briefs, U.S. District Court (Alaska) decision on NPR-A leasing, NPR-A modified R.O.D., and other related materials. The collaborative efforts of Robert King (FDO), consultation with Keith Goltz (Regional Solicitor's Office), and excellent reviews of drafts by several individuals or offices have greatly assisted in the development of this policy.

The Department of Interior and an Alaska Land Use Council (LUC) subcommittee on subsistence are developing 810 policy/procedures for use by all federal agencies. They are using BLM's procedure for development purposes. Modification of the policy herein may result from the LUC or Departmental process. It may also be revised based upon your comments, and experience over time and situations.

If this material raises questions or if you wish to arrange a briefing contact Robert King (FDO), (907/FTS) 356-5179 or David Dorris (ASO), (907/FTS) 271-3349.

Fred Wolf
State Director
(ACTING)

Enclosures:

Encl. 1 - Compliance with ANILCA (7 pp)
Encl. 2 - Chart (1 p)
Encl. 3 - 3809 Mining Plans (1 p)
Encl. 4 - Fire Planning (1 p)
Encl. 5 - Evaluation of Permits for Activities Relating to Subsistence (1 p)
Encl. 6 - Categorical Exclusions (1 p)
Encl. 7 - Subsistence Evaluation Component 2 (2 pp)
Encl. 8 - Subsistence Evaluation Component 3 (2 pp)
Encl. 9 - Significance (3 pp)
Encl. 10 - Public Hearings (1 pp)
Encl. 11 - Determinations (2 pp)
Encl. 12 - Permits and 810 Subsistence Evaluation (8 pp)

Distribution:
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Enclosures are not reproduced in this document. They are available for public reading in the Fairbanks District Office.

Part III The Management Program

Introduction

The following management actions are the result of a thorough evaluation of the objectives, issues, concerns, and constraints discussed in Part II of this report. An attempt has been made to respond to the concerns of various user groups without compromising the values for which the river was designated. This management program will be evaluated periodically to determine what changes may be necessary.

Management Actions

ITEM 1 - SURFACE TRANSPORTATION

Action 1.1. Overland transportation systems within or across the river corridor may be authorized if it is determined that there are no economically feasible and prudent alternative routes (ANILCA Section 1105).

Discussion: Any authorized transportation system must be compatible with wild river values, and shall be located and constructed in a manner that does not interfere with or impede stream flow or transportation on the river. Locations and construction techniques shall be selected to minimize adverse effects on scenic, recreational, fish and wildlife, and other values of the river area (ANILCA Section 1107).

Action 1.2: Access to mining claims located prior to ANILCA and with acceptable proof of discovery will be managed under existing regulations in 43 CFR 3809.

Discussion: 43 CFR 3809 requires a "plan of operations" from all mining claimants planning surface disturbing activities within the Steese NCA or the river corridor. These plans must include a detailed description of access needs. The Bureau will specify vehicle types, season of use, reclamation and mining plans to minimize adverse impacts.

Action 1.3: Use of vehicles weighing less than 1,500 pounds GVW is authorized without a permit. Use of vehicles weighing more than 1,500 pounds GVW is prohibited without authorization or approved plan of operations.

Discussion: For vehicle use requiring authorization, the area manager will assure adequate and feasible surface access to Federal, State or privately-owned land, properly located mining claims, other valid occupancy, or for other proposals subject to reasonable requirements to protect the national wild river values (ANILCA Section 1110).

The location, time of year, and the type of vehicle shall be selected to minimize adverse effects on scenic, recreational, fish, wildlife, and other values of the river corridor.

Action 1.4: A program will be established to monitor the effects of vehicle use within the river corridor boundary.

Discussion: Limitations on vehicle use (such as limiting use to identified routes) may be imposed if significant problems are found to be occurring.

Action 1.5: The Bureau will work cooperatively with the State of Alaska to identify all rights-of-way claimed pursuant to RS2477 within the river boundaries for administrative purposes.

Discussion: When rights or title are granted directly by statute, such as RS2477, the Bureau cannot adjudicate these rights. However, for the purposes of carrying out the Bureau's administrative duties, a determination may be made. Such a determination would not affect the legality of an RS2477 right-of-way, but would provide a basis for administrative actions such as acceptance of right-of-way applications or trespass actions.

Action 1.6: Use of motorized boats is permitted without specific authorization.

Discussion: The past location of use, types of boats, and horsepower levels are considered compatible with the values of the national wild river and no limitations to protect values are presently necessary. Hovercraft and airboats are not considered compatible and will not be authorized.

ITEM 2 - AIRCRAFT USE

Action 2.1: Construction of new public landing strips within the river corridor may be allowed if there is an identified and significant public need.

Discussion: Landing strips must be compatible with river values and it must be shown that there is no economically feasible and prudent alternative site (ANILCA Sections 1102 - 1105).

Action 2.2: Landing of fixed-wing or rotary wing aircraft is permitted in the river corridor without specific authorization.

Discussion: Present use has not created significant adverse affects upon the river corridor. In the future specific areas may be closed to such access to facilitate resource protection (such as to protect peregrine falcon critical habitat).

ITEM 3 - MINERALS MANAGEMENT

Action 3.1: Mining claims properly located and maintained prior to inclusion in the Wild and Scenic Rivers System will be managed under the mining laws and 43 CFR 3809. Plans of operations required under 43 CFR 3809 will address a logical sequence of mineral development and extraction. Changes may be made at any time subject to approval of an amended plan of operations.

Discussion: The Bureau will assess each proposed plan with the intention of achieving an optimum balance between reasonable and necessary operations and their effects on the environment. A plan of operations should present a logical sequence of discrete stages from exploration through development to extraction and

ensuing reclamation for a period of five years or mine life, whichever is less. Professional evaluation of the development of a mine, especially operations utilizing mechanized earth-moving equipment, necessitates the emphasis on pre-development exploration. Activities to establish and delineate mineral reserves will be stressed by the BLM before plans involving large-scale mechanical stripping operations within the river corridor will be authorized.

Continued implementation of existing surface management regulations within the river corridor shall be a BLM priority for minerals management. A minimum of one field visit will be made for each operation in the river corridor annually.

Mining operations in the Steese National Conservation Area outside the river corridor will be addressed in the Land Use Plan now being prepared.

Action 3.2: Minerals rights-of-way applications will be administered as described in 43 CFR 2880.

Action 3.3: Improperly located mining claims will be adjudicated in a timely fashion.

Discussion: The river corridor will be designated as a priority area for mineral adjudication. Adjudication will determine if claims are located in compliance with existing land orders and issue any necessary decisions. Claims improperly located and operating will constitute mineral trespass.

Action 3.4: The area manager shall cooperate with private landowners, mining operators, and the State of Alaska to ensure that mineral exploration and development on non-Federal lands which may affect the river corridor are developed to minimize adverse effects on the national wild river.

Action 3.5: Mineral collection for personal recreation using only a gold pan, shovel, or other nonmotorized means is allowed in areas where there are no existing claims or private lands.

ITEM 4 -- WATER QUALITY

Action 4.1: All use authorizations will include measures to control water pollution.

Discussion: Using accepted techniques, the user must make every reasonable attempt to achieve established water quality standards for both water discharge and sewage disposal.

Action 4.2: The Area Manager shall cooperate with the Alaska Department of Environmental Conservation, and where appropriate, the U.S. Environmental Protection Agency, for the purpose of preventing, eliminating, or diminishing the pollution of river water consistent with the Federal Clean Water Act or Federally Approved State Water Quality Standards.

ITEM 5 -- WATER RIGHTS

Action 5.1: A reservation of minimum water flows sufficient for public recreation use and to support the values for which the wild river was designated will be

determined in cooperation with the Alaska Department of Natural Resources, Division of Land and Water Management.

Discussion: The jurisdiction of the State over waters within the Birch Creek National Wild River watershed shall not be affected by the designation to the extent that such jurisdiction may be exercised without impairing the purposes for which the national wild river was established (WSRA Section 13).

ITEM 6 - FACILITY MANAGEMENT

Action 6.1: No new developed recreation facilities within the river corridor are proposed by this management plan.

Discussion: Basic minimum facilities, such as toilets, refuse containers, or primitive campsites may be authorized in the future to mitigate user impacts on the resource. If these types of facilities are necessary, they will generally be located at access points or at a sufficient distance from the riverbank to minimize their potential adverse impact.

Recreational hiking trails across or within the river corridor may be authorized.

Consideration will be given in the Steese National Conservation Area Land Use Plan to ensure continued surface access via the Steese Highway and to the establishment of developed recreation facilities outside the river corridor.

Action 6.2: The construction of new cabins or temporary structures such as for trapping may be authorized pursuant to a nontransferable, five-year special use permit issued by the Area Manager.

Discussion: Special use permits will be issued upon a determination that the proposed use, construction, and maintenance of a cabin is compatible with the purpose for which the national wild river was established (ANILCA Section 1303).

Permit conditions should address timber cutting, sanitation, access, and setbacks beyond the line-of-sight of the river.

Special use permits will not be issued to authorize the construction of a cabin for private or commercial recreation use.

Action 6.3: Traditional and customary uses of existing cabins and related structures within the river corridor may be allowed to continue in accordance with a nontransferable, renewable, five-year special use permit, in the same manner as described for new cabins (ANILCA Section 1303).

Discussion: In situations where an authorization for cabin construction and use was not issued and no owners can be identified, the cabin may be posted and made available as a public recreation shelter.

Item 7 - VISITOR MANAGEMENT

Action 7.1: The river corridor will be managed to be essentially free from evidence of recreation management induced restriction or activities, such as permit systems or signs.

Discussion: Minimum on-site restrictions or recreation management activities may be authorized by the Area Manager to protect the public health and safety, or to protect resource values.

Action 7.2: Public information on Birch Creek National Wild River should emphasize resources protection measures, and visitor safety guidelines.

Action 7.3: Permits are required for all commercial river guides and outfitters operating within the river corridor.

Discussion: The impact of commercial river guides and outfitters will be closely monitored to ensure that the values for which the river area was designated are maintained. Should limitations on use to mitigate resource or user conflicts become necessary, priority on use will be allocated to noncommercial recreationists.

Item 8 - NON-FEDERAL LAND

Action 8.1: The area manager shall cooperate with non-Federal landowners to ensure that the purposes for which the river was designated are met to the greatest extent feasible and to ensure that non-Federal land owners are not unduly encumbered.

Action 8.2: A cooperative agreement will be negotiated with the State of Alaska for planning, administration, and management for the navigable portion of Birch Creek.

Discussion: The cooperative agreement should include the following topics:

- State objectives and policies for the beds of navigable wild rivers.
- Administrative agreement on the location of the "ordinary high water mark."
- Rights of State mineral claimants.
- Guidelines for management of mining operations on a navigable riverbed. These guidelines should include provisions for operations, access, and camping designed to minimize impacts on wild river values.
- Guidelines for visitor management, including commercial use.

Action 8.3: The area manager shall cooperate with non-Federal landowners to ensure adequate and feasible access to their lands, subject to reasonable regulations to protect the natural and other values of the national wild river.

Action 8.4: Condemnations may not be used to acquire fee title to lands. Non-Federal lands and interests in lands adjacent to the river corridor boundary may be acquired through mutually acceptable and agreed upon exchanges, sales or donations (WSRA Section 6).

Item 9 - FISH AND WILDLIFE

Action 9.1: Conduct an inventory of fish, wildlife, and habitat within the river corridor, and continue to monitor the effects of river management actions, population trends, and habitat use.

Discussion: Management priority will be given to peregrine falcon and crucial habitats of caribou, moose, fish, and raptors.

Action 9.2: Cooperate with the Alaska Department of Fish and Game to maintain, improve, or increase fish, wildlife, and habitat within the river corridor.

Item 10 - HUNTING, FISHING, AND TRAPPING

Action 10.1: Hunting, fishing, and trapping are permitted, subject to applicable State and Federal laws and regulations (WSRA Section 13).

Discussion: Nothing in the river designation affects the jurisdiction of the State of Alaska with respect to the management of fish and wildlife.

ITEM 11 - SUBSISTENCE

Action 11.1: The management of the river corridor is to cause the least adverse impact possible on subsistence values (ANILCA Section 802).

Discussion: Nothing in the river designation affects the jurisdiction of the State of Alaska with respect to subsistence.

ITEM 12 - FIRE MANAGEMENT

Action 12.1: Protecting human life and property and restoring the natural fire regime to the river area shall be the principal fire management considerations in the river corridor.

Discussion: Prescribed burning may be used for wildlife habitat improvement, fuels management, or for other purposes consistent with the Wild and Scenic Rivers Act. Wildfire management will be consistent with the Upper Yukon-Tanana Interagency Fire Management Plan.

ITEM 13 - HISTORIC AND ARCHAEOLOGICAL RESOURCES

Action 13.1: Prepare and maintain an inventory of historic and archaeological values within the river corridor.

Discussion: Areas or structures which are most likely to be adversely impacted by activities in the river corridor will be given inventory priority.

Action 13.2: Protect significant cultural resources and mitigate impacts on sites which may adversely be affected by activities within the river corridor.

ITEM 14 - SCENIC QUALITY

Action 14.1: The river corridor shall be managed to maintain the natural landscape.

Discussion: BLM policy states that changes in the scenic quality caused by a land use activity should be minimized within the boundaries of a wild river corridor. Areas within the river corridor which are not natural in appearance should be rehabilitated whenever possible.

ITEM 15 - WATER RESOURCES MANAGEMENT

Action 15.1: A system for the transportation of water, such as a canal, ditch, pipeline, diversion, may be allowed, provided certain conditions are met (ANILCA Section 1107).

Discussion: These types of developments will be subject to such conditions as may be necessary to assure that the stream flow of, and transportation on Birch Creek is not interfered with or impeded and that the system is located and constructed in an environmentally sound manner.

Action 15.2: Dams, reservoirs, power houses, flood control dams, levees, and similar developments are prohibited (WSRA Section 7).

ITEM 16 - NEW PIPELINE AND ELECTRICAL TRANSMISSION LINES

Action 16.1: New pipelines, electrical transmission lines, and similar transmission, distribution, or transportation systems may be permitted within or across the river corridor (ANILCA Sections 1102 - 1107).

Discussion: Before such a system will be authorized a determination must first be made that it would be compatible with the purposes for which the national wild river was established and that there is no economically feasible and prudent alternate route or location. Any authorized system shall be located and constructed in an environmentally sound manner and in a manner that does not interfere with or impede stream flow or transportation on the river. Locations and construction techniques shall be selected to minimize adverse effects on scenic, recreational, fish and wildlife, and other values of the river area (ANILCA, Sections 1102 - 1107).

ITEM 17 - FORESTRY AND VEGETATIVE RESOURCES

Action 17.1: The Area Manager may issue permits for the noncommercial harvest of fuelwood or house logs for local use, if there is no economically feasible and prudent alternative to doing so. Commercial harvest of timber within the river corridor is prohibited.

Discussion: The harvesting technique shall be selected to minimize adverse effects on the resource values of the river corridor.

Action 17.2: Prepare and maintain an inventory of the vegetative resources within the river corridor.

Dicussion: Management priority will be given to sensitive, threatened, or endangered plant species.

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§ 3809.1-4 Plan of operations—when required.

An approved plan of operations is required prior to commencing:

(a) Operations which exceed the disturbance level (5 acres) described in § 3809.1-3 of this title.

(b) Any operation, except casual use, in the following designated areas:

(1) Lands in the California Desert Conservation Area designated as 'controlled' or 'limited' use areas by the California Desert Conservation Area plan;

(2) Areas designated for potential addition to, or an actual component of the national wild and scenic rivers system,

(3) Designated Areas of Critical Environmental Concern;

(4) Areas designated as part of the National Wilderness Preservation System and administered by the Bureau of Land Management;

(5) Areas designated as "closed" to off-road vehicle use as defined in Subpart 8340 of this title.

(c) Plans properly filed and approved under this section constitute authorization under Part 8340 of this title (Off-Road Vehicles).

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.1-5 Filing and contents of plan of operations.

(a) A plan of operations must be filed in the District Office of the Bureau of Land Management having jurisdiction over the Federal lands in which the claim(s) or project area is located.

(b) No special form is required for filing a plan.

(c) The plan shall include:

(1) The name and mailing address of the operator (and claimant if not the operator). Any change of operator or change in the mailing address shall be promptly reported to the authorized officer;

(2) A map, preferably a topographic map, or sketch showing existing and/or proposed routes of access, aircraft landing areas, or other means of access, and size of each area where surface disturbance will occur;

(3) When applicable, the name of the mining claim(s) and mining claim serial numbers assigned to the mining claim(s) recorded pursuant to Subpart 3833 of this title.

(4) Information sufficient to describe or identify the type of operations proposed, how they will be conducted and the period during which the proposed activity will take place;

(5) Measures to be taken to prevent unnecessary or undue degradation and measures to reclaim disturbed areas resulting from the proposed operations, including the standards listed in § 3809.1-3(d) of this title. Where an operator advises the authorized officer that he/she does not have the necessary technical resources to develop such measures the authorized officer will assist the operator in developing such measures. If an operator submits reclamation measures, the authorized officer will ensure that the operator's plan is sufficient to prevent unnecessary or undue degradation. All reclamation measures developed by the operator, or by the authorized officer in conjunction with the operator, shall become a part of the plan of operations.

(6) Measures to be taken during extended periods of nonoperation to maintain the area in a safe and clean manner and to reclaim the land to avoid erosion and other adverse impacts. If not filed at the time of plan submittal, this information shall be filed with the authorized officer whenever the operator anticipates a period of nonoperation.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.1-6 Plan approval.

(a) A proposed plan of operations shall be submitted to the authorized officer, who shall promptly acknowledge receipt thereof to the operator. The authorized officer shall, within 30 days of such receipt, analyze the proposal in the context of the requirement to prevent unnecessary or undue degradation and provide for reason-

able reclamation, and shall notify the operator:

(1) That the plan is approved; or

(2) Of any changes in or additions to the plan necessary to meet the requirements of these regulations; or

(3) That the plan is being reviewed, but that a specified amount of time, not to exceed an additional 60 days, is necessary to complete the review, setting forth the circumstances which justify additional time for review. However, days during which the area of operations is inaccessible for inspection shall not be counted when computing the 60 day period; or

(4) That the plan cannot be approved until 30 days after a final environmental statement has been prepared and filed with the Environmental Protection Agency; or

(5) That the plan cannot be approved until the authorized officer has complied with section 106 of the National Historic Preservation Act or section 7 of the Endangered Species Act.

(b) The authorized officer shall consult with the appropriate official of the bureau or agency having surface management responsibilities where such responsibility is not exercised by the Bureau of Land Management. Prior to plan approval the authorized officer shall obtain the concurrence of such appropriate official to the terms and conditions that may be needed to prevent unnecessary or undue degradation.

(c) The authorized officer shall undertake an appropriate level of cultural resource inventory of the area to be disturbed. The inventory shall be completed within the time allowed by these regulations for approval of the plan (30 days). The operator is not required to do the inventory but may hire an archaeologist approved by the Bureau of Land Management in order to complete the inventory more expeditiously. The responsibility for and cost of salvage of cultural resources discovered during the inventory shall be the Federal Government's. The responsibility of avoiding adverse impacts on those cultural resources discovered during the inventory shall be the operator's.

(d) Pending final approval of the plan, the authorized officer shall approve any operations that may be necessary for timely compliance with requirements of Federal and State laws, subject to any terms and conditions that may be needed to prevent unnecessary or undue degradation.

(e) In the event of a change of operators involving an approved plan of operations, the new operator shall satisfy the requirements of § 3809.1-9 of this title as it relates to bonding.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.1-7 Modification of plan.

(a) At any time during operations under an approved plan, the operator on his/her own initiative may modify the plan or the authorized officer may request the operator to do so.

(b) A significant modification of an approved plan must be reviewed and approved by the authorized officer in the same manner as the initial plan.

(c)(1) If, when requested to do so by the authorized officer, the operator does not furnish a proposed modification within a reasonable time, usually 30 days, the authorized officer may recommend to the State Director that the operator be required to submit a proposed modification of the plan. The recommendation of the authorized officer shall be accompanied by a statement setting forth the facts and the reasons for the recommendations.

(2) In acting upon such recommendations the State Director shall determine, within 30 days, whether:

(i) All reasonable measures were taken by the authorized officer at the time the plan was approved to ensure that the proposed operations would not cause unnecessary or undue degradation of the Federal land;

(ii) The disturbance from the operations of the plan as approved or from unforeseen circumstances is or may become of such significance that modification of the plan is essential in order to prevent unnecessary or undue degradation; and

(iii) The disturbance can be minimized using reasonable means.

(3) Once the matter has been sent to the State Director, an operator is not required to submit a proposed modification of an approved plan until a de-

termination is made by the State Director. Where the State Director determines that a plan shall be modified, the operator shall timely submit a modified plan to the authorized officer for review and approval.

(4) Operations may continue in accordance with the approved plan until a modified plan is approved, unless the State Director determines that the operations are causing unnecessary or undue degradation to the land. The State Director shall advise the operator of those reasonable measures needed to avoid such degradation and the operator shall immediately take all necessary steps to implement those measures within a reasonable period established by the State Director.

§ 3809.1-8 Existing operations.

(a) Persons conducting operations on the effective date of these regulations, who would be required to submit a notice under § 3809.1-3 or a plan of operations under § 3809.1-4 of this title may continue operations but shall, within:

(1) 30 days submit a notice with required information outlined in § 3809.1-3 of this title for operations where 5 acres or less will be disturbed during a calendar year; or

(2) 120 days submit a plan in those areas identified in § 3809.1-4 of this title. Upon a showing of good cause, the authorized officer may grant an extension of time, not to exceed an additional 180 days, to submit a plan.

(b) Operations may continue according to the submitted plan during its review. If the authorized officer determines that operations are causing unnecessary or undue degradation of the Federal lands involved, the authorized officer shall advise the operator of those reasonable measures needed to avoid such degradation, and the operator shall take all necessary steps to implement those measures within a reasonable time recommended by the authorized officer. During the period of an appeal, if any, operations may continue without change, subject to other applicable Federal and State laws.

(c) Upon approval of a plan by the authorized officer, operations shall be conducted in accordance with the approval plan.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.1-9 Bonding requirements.

(a) No bond shall be required for operations that constitute casual use (§ 3809.1-2) or that are conducted under a notice (§ 3809.1-3 of this title).

(b) Any operator who conducts operations under an approved plan of operations as described in § 3809.1-5 of this title may, at the discretion of the authorized officer, be required to furnish a bond in an amount specified by the authorized officer. The authorized officer may determine not to require a bond in circumstances where operations would cause only minimal disturbance to the land. In determining the amount of the bond, the authorized officer shall consider the estimated cost of reasonable stabilization and reclamation of areas disturbed. In lieu of the submission of a separate bond, the authorized officer may accept evidence of an existing bond pursuant to State law or regulations for the same area covered by the plan of operations, upon a determination that the coverage would be equivalent to that provided in this section.

(c) In lieu of a bond, the operator may deposit and maintain in a Federal depository account of the United States Treasury, as directed by the authorized officer, cash in an amount equal to the required dollar amount of the bond or negotiable securities of the United States having a market value at the time of deposit of not less than the required dollar amount of the bond.

(d) In place of the individual bond on each separate operation, a blanket bond covering statewide or nationwide operations may be furnished at the option of the operator, if the terms and conditions, as determined by the authorized officer, are sufficient to comply with these regulations.

(e) In the event that an approved plan is modified in accordance with § 3809.1-7 of this title, the authorized officer shall review the initial bond for adequacy and, if necessary, adjust the amount of the bond to conform to the plan as modified.

(f) When all or any portion of the reclamation has been completed in ac-

cordance with the approved plan, the operator may notify the authorized officer that such reclamation has occurred and that she/he seeks a reduction in bond or Bureau approval of the adequacy of the reclamation, or both. Upon any such notification, the authorized officer shall promptly inspect the reclaimed area with the operator. The authorized officer shall then notify the operator, in writing, whether the reclamation is acceptable. When the authorized officer has accepted as completed any portion of the reclamation, the authorized officer shall authorize that the bond be reduced proportionally to cover the remaining reclamation to be accomplished.

(g) When a mining claim is patented, the authorized officer shall release the operator from that portion of the performance bond which applies to operations within the boundaries of the patented land. The authorized officer shall release the operator from the remainder of the performance bond, including the portion covering approved means of access outside the boundaries of the mining claim, when the operator has completed acceptable reclamation. However, existing access to patented mining claims, if across Federal lands shall continue to be regulated under the approved plan. The provisions of this subsection do not apply to patents issued on mining claims within the boundaries of the California Desert Conservation Area (See § 3809.6 of this title).

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.2 Prevention of unnecessary or undue degradation.

§ 3809.2-1 Environmental assessment.

(a) When an operator files a plan of operations or a significant modification which encompasses land not previously covered by an approved plan, the authorized officer shall make an environmental assessment or a supplement thereto to identify the impacts of the proposed operations on the lands and to determine whether an environmental impact statement is required.

(b) In conjunction with the operator, the authorized officer shall use the environmental assessment to determine the adequacy of mitigating measures and reclamation procedures included in the plan to insure the prevention of unnecessary or undue degradation of the land. If an operator advises the authorized officer that he/she is unable to prepare mitigating measures, the authorized officer, in conjunction with the operator, shall use the environmental assessment as a basis for assisting the operator in developing such measures.

(c) If, as a result of the environmental assessment, the authorized officer determines that there is "substantial public interest" in the plan, the authorized officer shall notify the operator, in writing, that an additional period of time, not to exceed the additional 60 days provided for approval of a plan in § 3809.1-6 of this title, is required to consider public comments on the environmental assessment.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.2-2 Other requirements for environmental protection.

All operations, including casual use and operations under either a notice (§ 3809.1-3) or a plan of operations (§ 3809.1-4 of this title), shall be conducted to prevent unnecessary or undue degradation of the Federal lands and shall comply with all pertinent Federal and State laws, including but not limited to the following:

(a) *Air quality.* All operators shall comply with applicable Federal and State air quality standards, including the Clean Air Act (42 U.S.C. 1857 *et seq.*).

(b) *Water quality.* All operators shall comply with applicable Federal and State water quality standards, including the Federal Water Pollution Control Act, as amended (30 U.S.C. 1151 *et seq.*).

(c) *Solid wastes.* All operators shall comply with applicable Federal and State standards for the disposal and treatment of solid wastes, including

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regulations issued pursuant to the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*). All garbage, refuse or waste shall either be removed from the affected lands or disposed of or treated to minimize, so far as is practicable, its impact on the lands.

(d) *Fisheries, wildlife and plant habitat.* The operator shall take such action as may be needed to prevent adverse impacts to threatened or endangered species, and their habitat which may be affected by operations.

(e) *Cultural and paleontological resources.* (1) Operators shall not knowingly disturb, alter, injure, or destroy any scientifically important paleontological remains or any historical or archaeological site, structure, building or object on Federal lands.

(2) Operators shall immediately bring to the attention of the authorized officer any cultural and/or paleontological resources that might be altered or destroyed on Federal lands by his/her operations, and shall leave such discovery intact until told to proceed by the authorized officer. The authorized officer shall evaluate the discoveries brought to his/her attention, take action to protect or remove the resource, and allow operations to proceed within 10 working days after notification to the authorized officer of such discovery.

(3) The Federal Government shall have the responsibility and bear the cost of investigations and salvage of cultural and paleontology values discovered after a plan of operations has been approved, or where a plan is not involved.

(f) *Protection of survey monuments.* To the extent practicable, all operators shall protect all survey monuments, witness corners, reference monuments, bearing trees and line trees against unnecessary or undue destruction, obliteration or damage. If, in the course of operations, any monuments, corners, or accessories are destroyed, obliterated or damaged by such operations, the operator shall immediately report the matter to the authorized officer. The authorized officer shall prescribe, in writing, the requirements for the restoration or reestablishment of monuments, corners, bearing and line trees.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980; 45 FR 32934, Dec. 17, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.3 General provisions.

§ 3809.3-1 Applicability of State law.

(a) Nothing in this subpart shall be construed to effect a preemption of State laws and regulations relating to the conduct of operations or reclamation on Federal lands under the mining laws.

(b) After the publication date of these regulations the Director, Bureau of Land Management, shall conduct a review of State laws and regulations in effect or due to come into effect, relating to unnecessary or undue degradation of lands disturbed by exploration for, or mining of, minerals locatable under the mining laws.

(c) The Director may consult with appropriate representatives of each State to formulate and enter into agreements to provide for a joint Federal-State program for administration and enforcement. The purpose of such agreements is to prevent unnecessary or undue degradation of the Federal lands from operations which are conducted under the mining laws, to prevent unnecessary administrative delay and to avoid duplication of administration and enforcement of laws. Such agreements may, whenever possible, provide for State administration and enforcement of such programs.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.3-2 Noncompliance.

(a) Failure of an operator to file a notice under § 3809.1-3 of this title or a plan of operations under § 3809.1-4 of this title will subject the operator, at the discretion of the authorized officer, to being served a notice of noncompliance or enjoined from the continuation of such operations by a court order until such time as a notice or plan is filed with the authorized of-

ficer. The operator shall also be responsible to reclaim operations conducted without an approved plan of operations or prior to the filing of a required notice.

(b) Failure to reclaim areas disturbed by operations under § 3809.1-3 of this title is a violation of these regulations.

(1) Where an operator is conducting operations covered by 3809.1-3 (notice) of this title and fails to comply with the provisions of that section or properly conduct reclamation according to standards set forth in 3809.1-3(d) of this title, a notice of noncompliance shall be served by delivery in person to the operator or his/her authorized agent, or by certified mail addressed to his/her address of record.

(2) Operators conducting operations under an approved plan of operations who fails to follow the approved plan of operations may be subject to a notice of noncompliance. A notice of noncompliance shall be served in the same manner as described in § 3809.3-2(b)(1) of this section.

(c) All operators who conduct operations under a notice pursuant to § 3809.1-3 and a plan pursuant to § 3809.1-4 of this title on Federal lands without taking the actions specified in a notice of noncompliance within the time specified therein may be enjoined by an appropriate court order from continuing such operations and be liable for damages for such unlawful acts.

(d) A notice of noncompliance shall specify in what respects the operator is failing or has failed to comply with the requirements of applicable regulations, and shall specify the actions which are in violation of the regulations and the actions which shall be taken to correct the noncompliance and the time, not to exceed 30 days, within which corrective action shall be started.

(e) Failure of an operator to take necessary actions on a notice of noncompliance, may constitute justification for requiring the submission of a plan of operations under § 3809.1-5 of this title, and mandatory bonding for subsequent operations which would otherwise be conducted pursuant to a notice under § 3809.1-3 of this title.

[45 FR 78909, Nov. 26, 1980; 45 FR 82934, Dec. 17, 1980]

§ 3809.3-3 Access.

(a) An operator is entitled to access to his operations consistent with provisions of the mining laws.

(b) Where a notice or a plan of operations is required, it shall specify the location of access routes for operations and other conditions necessary to prevent unnecessary or undue degradation. The authorized officer may require the operator to use existing roads to minimize the number of access routes, and, if practicable, to construct access roads within a designated transportation or utility corridor. When commercial hauling is involved and the use of an existing road is required, the authorized officer may require the operator to make appropriate arrangements for use and maintenance.

§ 3809.3-4 Fire prevention and control.

The operator shall comply with all applicable Federal and State fire laws and regulations, and shall take all reasonable measures to prevent and suppress fires in the area of operations.

§ 3809.3-5 Maintenance and public safety.

During all operations, the operator shall maintain his structures, equipment, and other facilities in a safe and orderly manner. Hazardous sites or conditions resulting from operations shall be marked by signs, fenced, or otherwise identified to alert the public in accordance with applicable Federal and State laws and regulations.

§ 3809.3-6 Inspection.

The authorized officer may periodically inspect operations to determine if the operator is complying with these regulations. The operator shall permit the authorized officer access for this purpose.

§ 3809.3-7 Periods of non-operation.

All operators shall maintain the site, structures and other facilities of the operations in a safe and clean condition during any non-operating periods. All operators may be required, after an extended period of non-operation

for other than seasonal operations, to remove all structures, equipment and other facilities and reclaim the site of operations, unless he/she receives permission, in writing, from the authorized officer to do otherwise.

§ 3809.4 Appeals.

(a) Any operator adversely affected by a decision of the authorized officer made pursuant to the provisions of this subpart shall have a right of appeal to the State Director, and thereafter to the Board of Land Appeals, Office of Hearings and Appeals, pursuant to Part 4 of this title, if the State Director's decision is adverse to the appellant.

(b) No appeal shall be considered unless it is filed, in writing, in the office of the authorized officer who made the decision from which an appeal is being taken, within 30 days after the date of receipt of the decision. A decision of the authorized officer from which an appeal is taken to the State Director shall be effective during the pendency of an appeal. A request for a stay may accompany the appeal.

(c) The appeal to the State Director shall contain:

(1) The name and mailing address of the appellant.

(2) When applicable, the name of the mining claim(s) and serial number(s) assigned to the mining claims recorded pursuant to Subpart 3833 of this title which are subject to the appeal.

(3) A statement of the reasons for the appeal and any arguments the appellant wishes to present which would justify reversal or modification of the decision.

(d) The State Director shall promptly render a decision on the appeal. The decision shall be in writing and shall set forth the reasons for the decision. The decision shall be sent to the appellant by certified mail, return receipt requested.

(e) The decision of the State Director, when adverse to the appellant, may be appealed to the Board of Land Appeals, Office of Hearings and Appeals, pursuant to Part 4 of this title.

(f) Any party, other than the operator, aggrieved by a decision of the authorized officer shall utilize the appeals procedures in Part 4 of this title. The filing of such an appeal shall not stop the authorized officer's decision from being effective.

(g) Neither the decision of the authorized officer nor the State Director shall be construed as final agency action for the purpose of judicial review of that decision.

(Sec. 2319 (30 U.S.C. 22); sec. 2478 (43 U.S.C. 1201) of the R.S. and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.))

[45 FR 78909, Nov. 26, 1980, as amended at 48 FR 8816, Mar. 2, 1983]

§ 3809.5 Public availability of information.

(a) Information and data submitted and specifically identified by the operator as containing trade secrets or confidential or privileged commercial or financial information shall not be available for public examination. Other information and data submitted by the operator shall be available for examination by the public at the office of the authorized officer in accordance with the provisions of the Freedom of Information Act.

(b) The determination concerning specific information which may be withheld from public examination shall be made in accordance with the rules in 43 CFR Part 2.

§ 3809.6 Special provisions relating to mining claims patented within the boundaries of the California Desert Conservation Area.

In accordance with section 601(f) of the Federal Land Policy and Management Act of October 21, 1976, all patents issued on mining claims located within the boundaries of the California Desert Conservation Area after the enactment of the Federal Land Policy and Management Act shall be subject to the regulations in this part, including the continuation of a plan of operations and of bonding with respect to the land covered by the patent.

APPENDIX G

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IN REPLY REFER TO

1606.3 (933)
ANILCA

May 11, 1984

Instruction Memorandum No. AK 84-339
Expires: 9/30/85

To: DM's, DSD's, M-AFS, and Public Affairs

From: State Director, Alaska

Subject: Policy for Alaska National Interest Lands Conservation Act (ANILCA), Section 810 Compliance

We have been following an interim policy for fulfilling the requirements of ANILCA Section 810 (Subsistence), since March 5, 1981. Recent events have indicated a need to revise that policy. The policy/procedure contained herein replaces IM AK 81-114 and is effective immediately. This policy was developed from the BLM-AK Subsistence Workshop, DOI NPR-A court briefs, U.S. District Court (Alaska) decision on NPR-A leasing, NPR-A modified R.O.D., and other related materials. The collaborative efforts of Robert King (FDO), consultation with Keith Goltz (Regional Solicitor's Office), and excellent reviews of drafts by several individuals or offices have greatly assisted in the development of this policy.

The Department of Interior and an Alaska Land Use Council (LUC) subcommittee on subsistence are developing 810 policy/procedures for use by all federal agencies. They are using BLM's procedure for development purposes. Modification of the policy herein may result from the LUC or Departmental process. It may also be revised based upon your comments, and experience over time and situations.

If this material raises questions or if you wish to arrange a briefing contact Robert King (FDO), (907/FTS) 356-5179 or David Dorris (ASO), (907/FTS) 271-3349.

Fred Wolf
State Director
(ACTING)

Enclosures:

Encl. 1 - Compliance with ANILCA (7 pp)
Encl. 2 - Chart (1 p)
Encl. 3 - 3809 Mining Plans (1 p)
Encl. 4 - Fire Planning (1 p)
Encl. 5 - Evaluation of Permits for Activities Relating to Subsistence (1 p)
Encl. 6 - Categorical Exclusions (1 p)
Encl. 7 - Subsistence Evaluation Component 2 (2 pp)
Encl. 8 - Subsistence Evaluation Component 3 (2 pp)
Encl. 9 - Significance (3 pp)
Encl. 10 - Public Hearings (1 pp)
Encl. 11 - Determinations (2 pp)
Encl. 12 - Permits and 810 Subsistence Evaluation (8 pp)

Distribution:
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Enclosures are not reproduced in this document. They are available for public reading in the Fairbanks District Office.

Part III The Management Program

Introduction

The following management actions are the result of a thorough evaluation of the objectives, issues, concerns, and constraints discussed in Part II of this report. An attempt has been made to respond to the concerns of various user groups without compromising the values for which the river was designated. This management program will be evaluated periodically to determine what changes may be necessary.

Management Actions

ITEM 1 - SURFACE TRANSPORTATION

Action 1.1. Overland transportation systems within or across the river corridor may be authorized if it is determined that there are no economically feasible and prudent alternative routes (ANILCA Section 1105).

Discussion: Any authorized transportation system must be compatible with wild river values, and shall be located and constructed in a manner that does not interfere with or impede stream flow or transportation on the river. Locations and construction techniques shall be selected to minimize adverse effects on scenic, recreational, fish and wildlife, and other values of the river area (ANILCA Section 1107).

Action 1.2: Access to mining claims located prior to ANILCA and with acceptable proof of discovery will be managed under existing regulations in 43 CFR 3809.

Discussion: 43 CFR 3809 requires a "plan of operations" from all mining claimants planning surface disturbing activities within the Steese NCA or the river corridor. These plans must include a detailed description of access needs. The Bureau will specify vehicle types, season of use, reclamation and mining plans to minimize adverse impacts.

Action 1.3: Use of vehicles weighing less than 1,500 pounds GVW is authorized without a permit. Use of vehicles weighing more than 1,500 pounds GVW is prohibited without authorization or approved plan of operations.

Discussion: For vehicle use requiring authorization, the area manager will assure adequate and feasible surface access to Federal, State or privately-owned land, properly located mining claims, other valid occupancy, or for other proposals subject to reasonable requirements to protect the national wild river values (ANILCA Section 1110).

The location, time of year, and the type of vehicle shall be selected to minimize adverse effects on scenic, recreational, fish, wildlife, and other values of the river corridor.

Action 1.4: A program will be established to monitor the effects of vehicle use within the river corridor boundary.

Discussion: Limitations on vehicle use (such as limiting use to identified routes) may be imposed if significant problems are found to be occurring.

Action 1.5: The Bureau will work cooperatively with the State of Alaska to identify all rights-of-way claimed pursuant to RS2477 within the river boundaries for administrative purposes.

Discussion: When rights or title are granted directly by statute, such as RS2477, the Bureau cannot adjudicate these rights. However, for the purposes of carrying out the Bureau's administrative duties, a determination may be made. Such a determination would not affect the legality of an RS2477 right-of-way, but would provide a basis for administrative actions such as acceptance of right-of-way applications or trespass actions.

Action 1.6: Use of motorized boats is permitted without specific authorization.

Discussion: The past location of use, types of boats, and horsepower levels are considered compatible with the values of the national wild river and no limitations to protect values are presently necessary. Hovercraft and airboats are not considered compatible and will not be authorized.

ITEM 2 - AIRCRAFT USE

Action 2.1: Construction of new public landing strips within the river corridor may be allowed if there is an identified and significant public need.

Discussion: Landing strips must be compatible with river values and it must be shown that there is no economically feasible and prudent alternative site (ANILCA Sections 1102 - 1105).

Action 2.2: Landing of fixed-wing or rotary wing aircraft is permitted in the river corridor without specific authorization.

Discussion: Present use has not created significant adverse affects upon the river corridor. In the future specific areas may be closed to such access to facilitate resource protection (such as to protect peregrine falcon critical habitat).

ITEM 3 - MINERALS MANAGEMENT

Action 3.1: Mining claims properly located and maintained prior to inclusion in the Wild and Scenic Rivers System will be managed under the mining laws and 43 CFR 3809. Plans of operations required under 43 CFR 3809 will address a logical sequence of mineral development and extraction. Changes may be made at any time subject to approval of an amended plan of operations.

Discussion: The Bureau will assess each proposed plan with the intention of achieving an optimum balance between reasonable and necessary operations and their effects on the environment. A plan of operations should present a logical sequence of discrete stages from exploration through development to extraction and

ensuing reclamation for a period of five years or mine life, whichever is less. Professional evaluation of the development of a mine, especially operations utilizing mechanized earth-moving equipment, necessitates the emphasis on pre-development exploration. Activities to establish and delineate mineral reserves will be stressed by the BLM before plans involving large-scale mechanical stripping operations within the river corridor will be authorized.

Continued implementation of existing surface management regulations within the river corridor shall be a BLM priority for minerals management. A minimum of one field visit will be made for each operation in the river corridor annually.

Mining operations in the Steese National Conservation Area outside the river corridor will be addressed in the Land Use Plan now being prepared.

Action 3.2: Minerals rights-of-way applications will be administered as described in 43 CFR 2880.

Action 3.3: Improperly located mining claims will be adjudicated in a timely fashion.

Discussion: The river corridor will be designated as a priority area for mineral adjudication. Adjudication will determine if claims are located in compliance with existing land orders and issue any necessary decisions. Claims improperly located and operating will constitute mineral trespass.

Action 3.4: The area manager shall cooperate with private landowners, mining operators, and the State of Alaska to ensure that mineral exploration and development on non-Federal lands which may affect the river corridor are developed to minimize adverse effects on the national wild river.

Action 3.5: Mineral collection for personal recreation using only a gold pan, shovel, or other nonmotorized means is allowed in areas where there are no existing claims or private lands.

ITEM 4 -- WATER QUALITY

Action 4.1: All use authorizations will include measures to control water pollution.

Discussion: Using accepted techniques, the user must make every reasonable attempt to achieve established water quality standards for both water discharge and sewage disposal.

Action 4.2: The Area Manager shall cooperate with the Alaska Department of Environmental Conservation, and where appropriate, the U.S. Environmental Protection Agency, for the purpose of preventing, eliminating, or diminishing the pollution of river water consistent with the Federal Clean Water Act or Federally Approved State Water Quality Standards.

ITEM 5 -- WATER RIGHTS

Action 5.1: A reservation of minimum water flows sufficient for public recreation use and to support the values for which the wild river was designated will be

determined in cooperation with the Alaska Department of Natural Resources, Division of Land and Water Management.

Discussion: The jurisdiction of the State over waters within the Birch Creek National Wild River watershed shall not be affected by the designation to the extent that such jurisdiction may be exercised without impairing the purposes for which the national wild river was established (WSRA Section 13).

ITEM 6 - FACILITY MANAGEMENT

Action 6.1: No new developed recreation facilities within the river corridor are proposed by this management plan.

Discussion: Basic minimum facilities, such as toilets, refuse containers, or primitive campsites may be authorized in the future to mitigate user impacts on the resource. If these types of facilities are necessary, they will generally be located at access points or at a sufficient distance from the riverbank to minimize their potential adverse impact.

Recreational hiking trails across or within the river corridor may be authorized.

Consideration will be given in the Steese National Conservation Area Land Use Plan to ensure continued surface access via the Steese Highway and to the establishment of developed recreation facilities outside the river corridor.

Action 6.2: The construction of new cabins or temporary structures such as for trapping may be authorized pursuant to a nontransferable, five-year special use permit issued by the Area Manager.

Discussion: Special use permits will be issued upon a determination that the proposed use, construction, and maintenance of a cabin is compatible with the purpose for which the national wild river was established (ANILCA Section 1303).

Permit conditions should address timber cutting, sanitation, access, and setbacks beyond the line-of-sight of the river.

Special use permits will not be issued to authorize the construction of a cabin for private or commercial recreation use.

Action 6.3: Traditional and customary uses of existing cabins and related structures within the river corridor may be allowed to continue in accordance with a nontransferable, renewable, five-year special use permit, in the same manner as described for new cabins (ANILCA Section 1303).

Discussion: In situations where an authorization for cabin construction and use was not issued and no owners can be identified, the cabin may be posted and made available as a public recreation shelter.

Item 7 - VISITOR MANAGEMENT

Action 7.1: The river corridor will be managed to be essentially free from evidence of recreation management induced restriction or activities, such as permit systems or signs.

Discussion: Minimum on-site restrictions or recreation management activities may be authorized by the Area Manager to protect the public health and safety, or to protect resource values.

Action 7.2: Public information on Birch Creek National Wild River should emphasize resources protection measures, and visitor safety guidelines.

Action 7.3: Permits are required for all commercial river guides and outfitters operating within the river corridor.

Discussion: The impact of commercial river guides and outfitters will be closely monitored to ensure that the values for which the river area was designated are maintained. Should limitations on use to mitigate resource or user conflicts become necessary, priority on use will be allocated to noncommercial recreationists.

Item 8 - NON-FEDERAL LAND

Action 8.1: The area manager shall cooperate with non-Federal landowners to ensure that the purposes for which the river was designated are met to the greatest extent feasible and to ensure that non-Federal land owners are not unduly encumbered.

Action 8.2: A cooperative agreement will be negotiated with the State of Alaska for planning, administration, and management for the navigable portion of Birch Creek.

Discussion: The cooperative agreement should include the following topics:

- State objectives and policies for the beds of navigable wild rivers.
- Administrative agreement on the location of the "ordinary high water mark."
- Rights of State mineral claimants.
- Guidelines for management of mining operations on a navigable riverbed. These guidelines should include provisions for operations, access, and camping designed to minimize impacts on wild river values.
- Guidelines for visitor management, including commercial use.

Action 8.3: The area manager shall cooperate with non-Federal landowners to ensure adequate and feasible access to their lands, subject to reasonable regulations to protect the natural and other values of the national wild river.

Action 8.4: Condemnations may not be used to acquire fee title to lands. Non-Federal lands and interests in lands adjacent to the river corridor boundary may be acquired through mutually acceptable and agreed upon exchanges, sales or donations (WSRA Section 6).

Item 9 - FISH AND WILDLIFE

Action 9.1: Conduct an inventory of fish, wildlife, and habitat within the river corridor, and continue to monitor the effects of river management actions, population trends, and habitat use.

Discussion: Management priority will be given to peregrine falcon and crucial habitats of caribou, moose, fish, and raptors.

Action 9.2: Cooperate with the Alaska Department of Fish and Game to maintain, improve, or increase fish, wildlife, and habitat within the river corridor.

Item 10 - HUNTING, FISHING, AND TRAPPING

Action 10.1: Hunting, fishing, and trapping are permitted, subject to applicable State and Federal laws and regulations (WSRA Section 13).

Discussion: Nothing in the river designation affects the jurisdiction of the State of Alaska with respect to the management of fish and wildlife.

ITEM 11 - SUBSISTENCE

Action 11.1: The management of the river corridor is to cause the least adverse impact possible on subsistence values (ANILCA Section 802).

Discussion: Nothing in the river designation affects the jurisdiction of the State of Alaska with respect to subsistence.

ITEM 12 - FIRE MANAGEMENT

Action 12.1: Protecting human life and property and restoring the natural fire regime to the river area shall be the principal fire management considerations in the river corridor.

Discussion: Prescribed burning may be used for wildlife habitat improvement, fuels management, or for other purposes consistent with the Wild and Scenic Rivers Act. Wildfire management will be consistent with the Upper Yukon-Tanana Interagency Fire Management Plan.

ITEM 13 - HISTORIC AND ARCHAEOLOGICAL RESOURCES

Action 13.1: Prepare and maintain an inventory of historic and archaeological values within the river corridor.

Discussion: Areas or structures which are most likely to be adversely impacted by activities in the river corridor will be given inventory priority.

Action 13.2: Protect significant cultural resources and mitigate impacts on sites which may adversely be affected by activities within the river corridor.

ITEM 14 - SCENIC QUALITY

Action 14.1: The river corridor shall be managed to maintain the natural landscape.

Discussion: BLM policy states that changes in the scenic quality caused by a land use activity should be minimized within the boundaries of a wild river corridor. Areas within the river corridor which are not natural in appearance should be rehabilitated whenever possible.

ITEM 15 - WATER RESOURCES MANAGEMENT

Action 15.1: A system for the transportation of water, such as a canal, ditch, pipeline, diversion, may be allowed, provided certain conditions are met (ANILCA Section 1107).

Discussion: These types of developments will be subject to such conditions as may be necessary to assure that the stream flow of, and transportation on Birch Creek is not interfered with or impeded and that the system is located and constructed in an environmentally sound manner.

Action 15.2: Dams, reservoirs, power houses, flood control dams, levees, and similar developments are prohibited (WSRA Section 7).

ITEM 16 - NEW PIPELINE AND ELECTRICAL TRANSMISSION LINES

Action 16.1: New pipelines, electrical transmission lines, and similar transmission, distribution, or transportation systems may be permitted within or across the river corridor (ANILCA Sections 1102 - 1107).

Discussion: Before such a system will be authorized a determination must first be made that it would be compatible with the purposes for which the national wild river was established and that there is no economically feasible and prudent alternate route or location. Any authorized system shall be located and constructed in an environmentally sound manner and in a manner that does not interfere with or impede stream flow or transportation on the river. Locations and construction techniques shall be selected to minimize adverse effects on scenic, recreational, fish and wildlife, and other values of the river area (ANILCA, Sections 1102 - 1107).

ITEM 17 - FORESTRY AND VEGETATIVE RESOURCES

Action 17.1: The Area Manager may issue permits for the noncommercial harvest of fuelwood or house logs for local use, if there is no economically feasible and prudent alternative to doing so. Commercial harvest of timber within the river corridor is prohibited.

Discussion: The harvesting technique shall be selected to minimize adverse effects on the resource values of the river corridor.

Action 17.2: Prepare and maintain an inventory of the vegetative resources within the river corridor.

Dicussion: Management priority will be given to sensitive, threatened, or endangered plant species.

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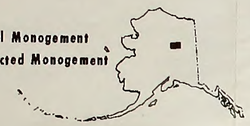
PROPOSED PLAN
Steese National Conservation Area

MANAGEMENT UNITS

- Primitive
- Semi-primitive Motorized
- Semi-primitive Motorized Special Monagement
- Semi-primitive Motorized Restricted Monagement
- Reseorch Noturol Areo
- Wild River Corridor



RECREATION FACILITIES

- Proposed Snowmobile Trail
- Proposed Hiking Trail
- Proposed Shelter/Use Cabin
- Proposed Trailhead
- Proposed Compground
- Existing Trail
- Existing Shelter/Use Cabin
- Existing Trailhead

Transportation Corridor

5 0 5 MILES 10 15 20

Yukon Flats National Wildlife Refuge

State Land

Circle

Central

Steese Highway

Private Land

Circle Hot Springs

Pinnell Mountain Trail

White Mountains National Recreation Area

State Land

Yukon-Charley Rivers National Preserve

Fairbanks

Preacher Creek

Harrison Creek

Birch Creek

Crums Fork

Beaver Creek

Haystack Mtn

Table Top Mtn

Twin Buttes

Miller Rock

Eagle Summit

Morrodor Dome

Twelve Mile Summit

Hot Springs

Mt. Prindle

Mt. Fossil

Mt. Hayes

Mt. Harper

Mt. Deception

Mt. Kimball

Mt. Hayden

Mt. Hubert

Mt. Wright

Mt. Hess

Mt. Moffit

Mt. Deborah

Mt. Foraker

Mt. Hunter

Mt. McKinley

Mt. Foster

Mt. Dall

Mt. Silverthrone

Mt. Russell

Mt. Huntington

Mt. Brooks

Mt. Denali

Mt. Healy

Mt. Fellows

Mt. Wrangell

Mt. Sanford

Mt. Drum

Mt. Jarvis

Mt. Hayes

Mt. Harper

Mt. Deception

Mt. Kimball

Mt. Hayden

Mt. Hubert

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